

FILE 'REGISTRY' ENTERED AT 17:14:48 ON 31 AUG 2004

L1 2 S ATRASENTAN  
L2 1 S 195733-43-8/RN  
L3 0 S 19570407204/RN  
L4 1 S 195704-72-4/RN  
L5 1 S 178738-96-0/RN  
L6 1 S 173937-92-3/RN  
L7 1 S 173937-91-2/RN  
L8 1 S 173864-34-1  
L9 1 S 173864-01-2/RN

=> s l1 or l2 or l4 or l5 or l6 or l7 or l8 or l9

L10 7 L1 OR L2 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9

=> file caplus uspatfull biotechno ipa biosis embase toxcenter medline cancerlit  
COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	17.95	18.16

FILE 'CAPLUS' ENTERED AT 17:20:21 ON 31 AUG 2004

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FILE 'USPATFULL' ENTERED AT 17:20:21 ON 31 AUG 2004

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FILE 'BIOTECHNO' ENTERED AT 17:20:21 ON 31 AUG 2004

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FILE 'IPA' ENTERED AT 17:20:21 ON 31 AUG 2004

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FILE 'BIOSIS' ENTERED AT 17:20:21 ON 31 AUG 2004

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FILE 'EMBASE' ENTERED AT 17:20:21 ON 31 AUG 2004

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FILE 'TOXCENTER' ENTERED AT 17:20:21 ON 31 AUG 2004

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FILE 'MEDLINE' ENTERED AT 17:20:21 ON 31 AUG 2004

FILE 'CANCERLIT' ENTERED AT 17:20:21 ON 31 AUG 2004

=> d his

(FILE 'HOME' ENTERED AT 17:14:39 ON 31 AUG 2004)

FILE 'REGISTRY' ENTERED AT 17:14:48 ON 31 AUG 2004

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L7 1 S 173937-91-2/RN  
L8 1 S 173864-34-1  
L9 1 S 173864-01-2/RN  
L10 7 S L1 OR L2 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9

FILE 'CAPLUS, USPATFULL, BIOTECHNO, IPA, BIOSIS, EMBASE, TOXCENTER,

MEDLINE, CANCERLIT' ENTERED AT 17:20:21 ON 31 AUG 2004

=> s l10

L11 581 L10

=> s bone# metasta?

L12 31827 BONE# METASTA?

=> s osteoblast?

L13 81268 OSTEOLAST?

=> d his

(FILE 'HOME' ENTERED AT 17:14:39 ON 31 AUG 2004)

FILE 'REGISTRY' ENTERED AT 17:14:48 ON 31 AUG 2004

L1 2 S ATRASANTAN

L2 1 S 195733-43-8/RN

L3 0 S 19570407204/RN

L4 1 S 195704-72-4/RN

L5 1 S 178738-96-0/RN

L6 1 S 173937-92-3/RN

L7 1 S 173937-91-2/RN

L8 1 S 173864-34-1

L9 1 S 173864-01-2/RN

L10 7 S L1 OR L2 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9

FILE 'CAPLUS, USPATFULL, BIOTECHNO, IPA, BIOSIS, EMBASE, TOXCENTER,  
MEDLINE, CANCERLIT' ENTERED AT 17:20:21 ON 31 AUG 2004

L11 581 S L10

L12 31827 S BONE# METASTA?

L13 81268 S OSTEOLAST?

=> s l11 and l12

L14 30 L11 AND L12

=> s l11 and l13

L15 9 L11 AND L13

=> s l14 and l15

L16 8 L14 AND L15

=> duplicate remove l8

DUPLICATE IS NOT AVAILABLE IN 'REGISTRY'.

ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

13.58

31.74

FILE 'REGISTRY' ENTERED AT 17:23:12 ON 31 AUG 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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STRUCTURE FILE UPDATES: 30 AUG 2004 HIGHEST RN 736108-36-4

DICTIONARY FILE UPDATES: 30 AUG 2004 HIGHEST RN 736108-36-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

PROCESSING COMPLETED FOR L8

L17 1 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)

=> d l16 1-8 bib abs

YOU HAVE REQUESTED DATA FROM FILE 'USPATFULL, BIOTECHNO, BIOSIS, EMBASE' -  
CONTINUE? (Y)/N:y

L16 ANSWER 1 OF 8 USPATFULL on STN

AN 2002:106248 USPATFULL

TI Methods of treating cancer and the pain associated therewith using  
endothelin antagonists

IN Janus, Todd J., Gurnee, IL, UNITED STATES

Padley, Robert J., Lake Bluff, IL, UNITED STATES

PI US 2002055457 A1 20020509

AI US 2001-923616 A1 20010806 (9)

PRAI US 2000-223486P 20000807 (60)

DT Utility

FS APPLICATION

LREP Steven F. Weinstock, Abbott Laboratories, D-377/AP6D, 100 Abbott Park  
Road, Abbott Park, IL, 60064-6050

CLMN Number of Claims: 58

ECL Exemplary Claim: 1

DRWN 7 Drawing Page(s)

LN.CNT 1394

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The instant invention is directed to methods for the inhibition of  
**bone metastases**, methods for the prevention of growth  
of new metastases, methods for the inhibition of bone turnover, and  
methods for the prevention of bone loss in patients, including cancer  
patients, using an endothelin ET-A receptor antagonist.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 8 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN

AN 2003:37140134 BIOTECHNO

TI A causal role for endothelin-1 in the pathogenesis of

**osteoblastic bone metastases**

AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale  
J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.

CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology,  
University of Virginia, P.O. Box 801419, Charlottesville, VA 22908,  
United States.

E-mail: tag4n@virginia.edu

SO Proceedings of the National Academy of Sciences of the United States of  
America, (16 SEP 2003), 100/19 (10954-10959), 42 reference(s)

CODEN: PNASA6 ISSN: 0027-8424

DT Journal; Article

CY United States

LA English

SL English

AB **Osteoblastic bone metastases** are common in  
prostate and breast cancer patients, but mechanisms by which tumor cells  
stimulate new bone formation are unclear. We identified three breast  
cancer cell lines that cause **osteoblastic** metastases in a mouse  
model and secrete endothelin-1. Tumor-produced endothelin-1 stimulates

new bone formation in vitro and **osteoblastic** metastases in vivo via the endothelin A receptor. Treatment with an orally active endothelin A receptor antagonist dramatically decreased **bone metastases** and tumor burden in mice inoculated with ZR-75-1 cells. Tumor-produced endothelin-1 may have a major role in the establishment of **osteoblastic bone metastases**, and endothelin A receptor blockade represents effective treatment.

L16 ANSWER 3 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
AN 2003:125326 BIOSIS  
DN PREV200300125326  
TI Role of endothelin-1 in **osteoblastic bone metastases**.  
AU Guise, Theresa A. [Reprint Author]; Yin, Juan Juan; Mohammad, Khalid S.  
CS Department of Medicine, Division of Endocrinology and Metabolism,  
University of Virginia, Aurbach Medical Research Building, PO Box 801419,  
Charlottesville, VA, 22908, USA  
tag4n@virginia.edu  
SO Cancer, (February 1 2003) Vol. 97, No. 3 Supplement, pp. 779-784. print.  
ISSN: 0008-543X (ISSN print).  
DT Article  
General Review; (Literature Review)  
LA English  
ED Entered STN: 5 Mar 2003  
Last Updated on STN: 5 Mar 2003  
AB BACKGROUND: Certain solid tumors metastasize to bone and cause an **osteoblastic** response. The mechanisms by which tumor cells stimulate this new bone formation are not completely understood. METHODS: The authors identified three breast cancer lines that cause **osteoblastic** metastases in female nude mice and provided evidence that tumor-produced endothelin-1 (ET-1) mediates the **osteoblastic** response. RESULTS: Tumor conditioned media, as well as exogenous ET-1, stimulated **osteoblast** proliferation and new bone formation in cultures of mouse calvariae. These effects were blocked by antagonists of the endothelin A (ETA), but not ETB, receptors. Mice inoculated with the ZR-75-1 breast cancer line and treated with a selective ETA receptor antagonist (ABT-627) had significantly fewer **osteoblastic bone metastases** and less tumor burden compared with untreated mice. In contrast, there was no effect of ABT-627 on osteolytic **bone metastases** caused by ET-1-negative breast cancer, MDA-MB-231. ABT-627 had no effect on growth in vitro or at the orthotopic site of ZR-75-1 or MDA-MB-231 cells. CONCLUSIONS: Collectively, the data suggested that tumor-produced ET-1 mediates **osteoblastic bone metastases** by stimulating **osteoblast** proliferation and new bone formation. ETA receptor blockade may be useful for prevention and the treatment of **osteoblastic bone metastases** due to breast or prostate cancer.

L16 ANSWER 4 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
AN 2002:394721 BIOSIS  
DN PREV200200394721  
TI Endothelin-1 dependent and independent mechanisms concur in the increased bone mass of prostate cancer **bone metastases**.  
AU Yang, Jun [Reprint author]; Fizazi, Karim; Peleg, Sara; Sikes, Charles R.; Raymond, Austin K.; Vazquez, Elba S.; Daliani, Danai; Janus, Todd; Logothetis, Christopher J.; Karsenty, Gerard; Navone, Nora M.  
CS MD Anderson Cancer Center, Houston, TX, USA  
SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2002) Vol. 43, pp. 315. print.  
Meeting Info.: 93rd Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA. April 06-10, 2002.  
ISSN: 0197-016X.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LA English  
ED Entered STN: 24 Jul 2002  
Last Updated on STN: 24 Jul 2002

L16 ANSWER 5 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
AN 2002:142771 BIOSIS  
DN PREV200200142771  
TI Endothelin-1 (ET-1) mediates pathological but not normal bone remodeling.  
AU Mohammad, K. S. [Reprint author]; Yin, J. J.; Grubbs, B. G.; Cui, Y.;  
Padley, R.; Guise, T. A.  
CS Medicine/Endocrinology, UTHSCSA, San Antonio, TX, USA  
SO Breast Cancer Research and Treatment, (October, 2001) Vol. 69, No. 3, pp.  
212. print.  
Meeting Info.: 24th Annual San Antonio Breast Cancer Symposium. San  
Antonio, Texas, USA. December 10-13, 2001.  
CODEN: BCTRD6. ISSN: 0167-6806.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 14 Feb 2002  
Last Updated on STN: 26 Feb 2002

L16 ANSWER 6 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
AN 2001:406611 BIOSIS  
DN PREV200100406611  
TI The effects of endothelin-1 and Abt-627, an endothelin-1 antagonist, in an  
in vitro model of **bone metastases** from prostate  
cancer.  
AU Fizazi, Karim [Reprint author]; Yang, Jun [Reprint author]; Daliani, Danaï  
[Reprint author]; Logothetis, Christopher [Reprint author]; Peleg, Sara  
[Reprint author]; Navone, Nora M. [Reprint author]  
CS MD Anderson Cancer Center, Houston, TX, USA  
SO Proceedings of the American Association for Cancer Research Annual  
Meeting, (March, 2001) Vol. 42, pp. 231. print.  
Meeting Info.: 92nd Annual Meeting of the American Association for Cancer  
Research. New Orleans, LA, USA. March 24-28, 2001. American Association  
for Cancer Research.  
ISSN: 0197-016X.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 22 Aug 2001  
Last Updated on STN: 22 Feb 2002

L16 ANSWER 7 OF 8 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
AN 2003435088 EMBASE  
TI Mechanisms of **Osteoblastic** Metastases: Role of Endothelin-1.  
AU Mohammad K.S.; Guise T.A.  
CS Dr. T.A. Guise, University of Virginia, Department of Internal Medicine,  
Div. of Endocrinology and Metabolism, 450 Ray C. Hunt Drive,  
Charlottesville, VA 22903, United States. TAG4N@Virginia.edu  
SO Clinical Orthopaedics and Related Research, (2003) -/415 SUPPL. (S67-S74).  
Refs: 67  
ISSN: 0009-921X CODEN: CORTBR  
CY United States  
DT Journal; Conference Article  
FS 016 Cancer  
029 Clinical Biochemistry  
033 Orthopedic Surgery  
LA English  
SL English  
AB Certain solid tumors metastasize to bone, causing an **osteoblastic**  
response. The mechanisms by which tumor cells stimulate this new bone

formation are not understood completely. We identified three breast cancer lines that cause **osteoblastic** metastases in female nude mice and provide evidence that tumor-produced endothelin-1 (ET-1) mediates the **osteoblastic** response. Tumor-conditioned media and exogenous ET-1 stimulated **osteoblast** proliferation and new bone formation in cultures of calvarias from mice. These effects were blocked by endothelin A (ET(A)) but not by ET(B) receptor antagonists. Mice inoculated with the ZR-75-1 breast cancer line and treated with a selective ET(A) receptor antagonist (ABT-627) had significantly fewer **osteoblastic bone metastases** and less tumor burden compared with untreated mice. In contrast, there was no effect of ABT-627 on osteolytic **bone metastases** caused by ET-1-negative breast cancer, MDA-MB-231. ABT-627 had no effect on cell growth in vitro or at the orthotopic site (mammary fat pad) of ZR-75-1, or MDA-MB-231 cells. Collectively, the data suggest that tumor-produced ET-1 mediates **osteoblastic bone metastases** by stimulating **osteoblast** proliferation and new bone formation. Endothelin A receptor blockade may be useful for the prevention and treatment of **osteoblastic bone metastases** attributable to breast or prostate cancer.

L16 ANSWER 8 OF 8 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
AN 2003379832 EMBASE  
TI A causal role for endothelin-1 in the pathogenesis of **osteoblastic bone metastases**.  
AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.  
CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology, University of Virginia, P.O. Box 801419, Charlottesville, VA 22908, United States. tag4n@virginia.edu  
SO Proceedings of the National Academy of Sciences of the United States of America, (16 Sep 2003) 100/19 (10954-10959).  
Refs: 42  
ISSN: 0027-8424 CODEN: PNASA6  
CY United States  
DT Journal; Article  
FS 005 General Pathology and Pathological Anatomy  
016 Cancer  
037 Drug Literature Index  
LA English  
SL English  
AB **Osteoblastic bone metastases** are common in prostate and breast cancer patients, but mechanisms by which tumor cells stimulate new bone formation are unclear. We identified three breast cancer cell lines that cause **osteoblastic** metastases in a mouse model and secrete endothelin-1. Tumor-produced endothelin-1 stimulates new bone formation in vitro and **osteoblastic** metastases in vivo via the endothelin A receptor. Treatment with an orally active endothelin A receptor antagonist dramatically decreased **bone metastases** and tumor burden in mice inoculated with ZR-75-1 cells. Tumor-produced endothelin-1 may have a major role in the establishment of **osteoblastic bone metastases**, and endothelin A receptor blockade represents effective treatment.

=> d his

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 L8 1 S 173864-34-1  
 L9 1 S 173864-01-2/RN  
 L10 7 S L1 OR L2 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9

FILE 'CAPLUS, USPATFULL, BIOTECHNO, IPA, BIOSIS, EMBASE, TOXCENTER, MEDLINE, CANCERLIT' ENTERED AT 17:20:21 ON 31 AUG 2004

L11 581 S L10  
 L12 31827 S BONE# METASTA?  
 L13 81268 S OSTEOLAST?  
 L14 30 S L11 AND L12  
 L15 9 S L11 AND L13  
 L16 8 S L14 AND L15

FILE 'REGISTRY' ENTERED AT 17:23:12 ON 31 AUG 2004  
 L17 1 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)

FILE 'USPATFULL, BIOTECHNO, BIOSIS, EMBASE' ENTERED AT 17:23:43 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:23:44 ON 31 AUG 2004

=> s l34 or l15

L34 NOT FOUND

The L-number entered could not be found. To see the definition of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l14 or l15

44533 BONE#  
 742 METASTA?  
 0 BONE# METASTA?  
 (BONE#(W)METASTA?)  
 283 OSTEOLAST?

L18 0 L14 OR L15

=> d l14 1-30 bib abs

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS, USPATFULL, BIOTECHNO, BIOSIS, EMBASE, TOXCENTER' - CONTINUE? (Y)/N:y

L14 ANSWER 1 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 2003:925734 CAPLUS  
 DN 139:390556  
 TI Endothelin receptor antagonists in the treatment of prostate cancer  
 AU Lassiter, Lance K.; Carducci, Michael A.  
 CS Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD, 21231, USA  
 SO Seminars in Oncology (2003), 30(5), 678-688  
 CODEN: SOLGAV; ISSN: 0093-7754  
 PB W. B. Saunders Co.  
 DT Journal; General Review  
 LA English  
 AB A review. The endothelin (ET) axis represents a novel and exciting target in the treatment of prostate cancer. ET-1, acting primarily through the endothelin A receptor (ETA), is integrally involved in multiple facets of prostate cancer progression, including cell growth, inhibition of apoptosis, angiogenesis, development and progression of **bone metastases**, and mediation of pain responses. Clin. trials with the ETA antagonist, atrasentan, have demonstrated good tolerability, with the most common adverse events being headache, rhinitis, and peripheral

edema. These trials have demonstrated statistically significant improvements in pain measures, prostate-specific antigen (PSA) kinetics, biol. markers of bone changes, and development of **bone metastases**. There have also been consistent improvements in time to progression, although not always statistically significant. Ongoing studies in a variety of patient populations will better define the role of ET receptor antagonists in the treatment of men with prostate cancer. In this article, we review the biol. and pathophysiol. of the ET axis in prostate cancer, critically analyze the major clin. trials reported to date, and discuss some emerging data and how it may impact the way we proceed in the future with the development of this class of drugs in prostate cancer.

RE.CNT 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:124519 CAPLUS

DN 139:270402

TI Suppression of Prostate Cancer Induced Bone Remodeling by The Endothelin Receptor A Antagonist Atrasentan

AU Nelson, Joel B.; Nabulsi, Azmi A.; Vogelzang, Nicholas J.; Breul, Jurgen; Zonnenberg, Bernard A.; Daliani, Danaï D.; Schulman, Claude C.; Carducci, Michael A.

CS Sidney Kimmel Comprehensive Cancer Cent., The Johns Hopkins Univ. Sch. Med., Baltimore, MD, USA

SO Journal of Urology (Hagerstown, MD, United States) (2003), 169(3), 1143-1149

CODEN: JOURAA; ISSN: 0022-5347

PB Lippincott Williams & Wilkins

DT Journal

LA English

AB We examined the effects of atrasentan (endothelin-A receptor antagonist) on bone deposition and resorption markers and on bone scan index. This double-blind, randomized, placebo controlled clin. trial of hormone refractory prostate cancer patients was done at 74 medical centers in the United States and Europe. A total of 288 asymptomatic patients with hormone refractory prostate adenocarcinoma and evidence of metastatic disease were randomized to 1 of 3 treatment groups, namely 2.5 mg. atrasentan, 10 mg. atrasentan or placebo administered orally daily until disease progression. The main outcomes measures were changes in bone deposition markers (total alkaline phosphatase and bone alkaline phosphatase)

and

bone resorption (N-telopeptides, C-telopeptides and deoxypyridinoline), and in the bone scan index. At baseline markers of bone deposition and resorption were elevated 1.4 to 2.7-fold above resp. upper limits of normal. Subjects receiving placebo experienced a 58% elevation in mean total alkaline phosphatase and a 99% elevation in mean bone alkaline phosphatase

phosphatase

(p <0.001), whereas subjects receiving 10 mg. atrasentan maintained stable mean total alkaline phosphatase and bone alkaline phosphatase values compared

with

baseline. N-telopeptides, C-telopeptides and deoxypyridinoline elevation from baseline were consistently less in patients receiving 10 mg. atrasentan compared with placebo. Similar trends were observed in subjects who received 2.5 mg. atrasentan. Changes in clin. bone scan studies paralleled bone marker changes. Atrasentan suppressed markers of biochem. and **bone metastasis** and demonstrates clin. activity for hormone refractory prostate cancer.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:354070 CAPLUS

DN 136:350550



TI Methods of treating cancer and the pain associated therewith using  
endothelin antagonists  
IN Janus, Todd J.; Padley, Robert J.  
PA USA  
SO U.S. Pat. Appl. Publ., 24 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002055457	A1	20020509	US 2001-923616	20010806
PRAI	US 2000-223486P	P	20000807		
OS	MARPAT 136:350550				

AB The instant invention is directed to methods for the inhibition of **bone metastases**, methods for the prevention of growth of new metastases, methods for the inhibition of bone turnover, and methods for the prevention of bone loss in patients, including cancer patients, using an endothelin ET-A receptor antagonist.

L14 ANSWER 4 OF 30 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2002:122776 CAPLUS  
DN 136:161346

TI Methods of treating cancer and the pain associated therewith using  
endothelin antagonists  
IN Janus, Todd J.; Padley, Robert J.  
PA Abbott Laboratories, USA  
SO PCT Int. Appl., 86 pp.  
CODEN: PIXXD2

DT Patent  
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002011713	A2	20020214	WO 2001-US24716	20010806
	WO 2002011713	A3	20030717		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU	2001081134	A5	20020218	AU 2001-81134	20010806
EP	1347751	A2	20031001	EP 2001-959595	20010806
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP	2004520266	T2	20040708	JP 2002-517050	20010806
NO	2003000593	A	20030206	NO 2003-593	20030206
BG	107577	A	20031031	BG 2003-107577	20030221
PRAI	US 2000-633389	A	20000807		
	WO 2001-US24716	W	20010806		
OS	MARPAT 136:161346				

AB The instant invention is directed to methods for the inhibition of **bone metastases**, methods for the prevention of growth of new metastases, methods for the inhibition of bone turnover, and methods for the prevention of bone loss in patients, including cancer patients, using an endothelin ET-A receptor antagonist.

L14 ANSWER 5 OF 30 USPATFULL on STN  
AN 2002:106248 USPATFULL

TI Methods of treating cancer and the pain associated therewith using

endothelin antagonists  
IN Janus, Todd J., Gurnee, IL, UNITED STATES  
Padley, Robert J., Lake Bluff, IL, UNITED STATES  
PI US 2002055457 A1 20020509  
AI US 2001-923616 A1 20010806 (9)  
PRAI US 2000-223486P 20000807 (60)  
DT Utility  
FS APPLICATION  
LREP Steven F. Weinstock, Abbott Laboratories, D-377/AP6D, 100 Abbott Park  
Road, Abbott Park, IL, 60064-6050  
CLMN Number of Claims: 58  
ECL Exemplary Claim: 1  
DRWN 7 Drawing Page(s)  
LN.CNT 1394

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The instant invention is directed to methods for the inhibition of  
**bone metastases**, methods for the prevention of growth  
of new metastases, methods for the inhibition of bone turnover, and  
methods for the prevention of bone loss in patients, including cancer  
patients, using an endothelin ET-A receptor antagonist.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 6 OF 30 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN  
AN 2003:37140134 BIOTECHNO  
TI A causal role for endothelin-1 in the pathogenesis of osteoblastic  
**bone metastases**  
AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale  
J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.  
CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology,  
University of Virginia, P.O. Box 801419, Charlottesville, VA 22908,  
United States.  
E-mail: tag4n@virginia.edu  
SO Proceedings of the National Academy of Sciences of the United States of  
America, (16 SEP 2003), 100/19 (10954-10959), 42 reference(s)  
CODEN: PNASA6 ISSN: 0027-8424  
DT Journal; Article  
CY United States  
LA English  
SL English  
AB Osteoblastic **bone metastases** are common in prostate  
and breast cancer patients, but mechanisms by which tumor cells stimulate  
new bone formation are unclear. We identified three breast cancer cell  
lines that cause osteoblastic metastases in a mouse model and secrete  
endothelin-1. Tumor-produced endothelin-1 stimulates new bone formation  
in vitro and osteoblastic metastases in vivo via the endothelin A  
receptor. Treatment with an orally active endothelin A receptor  
antagonist dramatically decreased **bone metastases** and  
tumor burden in mice inoculated with ZR-75-1 cells. Tumor-produced  
endothelin-1 may have a major role in the establishment of osteoblastic  
**bone metastases**, and endothelin A receptor blockade  
represents effective treatment.

L14 ANSWER 7 OF 30 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN  
AN 2003:36876616 BIOTECHNO  
TI New approaches for the prevention of **bone metastases**  
in patients with prostate cancer: A review of preclinical and clinical  
studies  
AU Lassiter L.K.; Carducci M.A.  
CS Dr. M.A. Carducci, Division of Medical Oncology, Sidney Kimmel Compreh.  
C. C. J. H., Cancer Research Building, 1650 Orleans St., Baltimore, MD  
21231, United States.  
E-mail: carducci@jhmi.edu  
SO American Journal of Cancer, (2003), 2/3 (181-199), 197 reference(s)

CODEN: AJCMCB ISSN: 1175-6357

DT Journal; General Review

CY New Zealand

LA English

SL English

AB **Bone metastases** are the most frequent complication of advanced prostate cancer and are responsible for the vast majority of disease-related morbidity and mortality. With the extensive number of predictive models for patients with prostate cancer, we can now determine to some degree which patients are at highest risk for progression to metastatic bone disease and therefore might benefit from earlier or more aggressive therapy. Combining this with our better understanding of the molecular biology underlying the progression to **bone metastasis**, we are able to identify more specific targets or pathways to approach therapeutically to prevent or delay the development of metastatic bone disease. General strategies for the prevention of **bone metastases** include bone-targeting approaches, antimetastatic therapies, and purely antineoplastic agents. Bisphosphonates comprise the most studied and effective of the bone-targeted agents and now have relatively sound clinical data supporting their role not only in the treatment of **bone metastases**, but also in the secondary prevention and, in some cases, primary prevention, of new skeletal complications. Their ease of administration and relatively low short- and long-term toxicities make them ideal for potential treatment earlier in the disease process as well. Radioisotopes have been studied and used for decades for the treatment of painful **bone metastases** but only recently have data accumulated demonstrating their efficacy in the prevention of new metastases. The endothelin receptor antagonist, atrasentan, has recently been shown to delay the progression of systemic disease and potentially improve survival in patients with prostate cancer. It appears to do so, at least in part, by bone-targeting mechanisms. Antimetastatic strategies are also promising for the prevention of **bone metastases** and include matrix metalloproteinase inhibitors, gene therapy, and other novel approaches, such as inhibiting tyrosine kinases or NFκB and immunomodulation of prostate stem cell antigens. Utilizing standard hormonal or cytotoxic therapies in the adjuvant setting has also been studied extensively and in certain groups of patients may provide meaningful clinical benefit in preventing or delaying systemic progression, including **bone metastases**. Finally, as we learn more about molecular synergies with various agents, combinations of these approaches with each other or with more traditional hormonal or chemotherapy agents may be even more effective in the prevention of **bone metastases** in patients with prostate cancer.

L14 ANSWER 8 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

AN 2004:232354 BIOSIS

DN PREV200400232119

TI Atrasentan delays disease progression in men presenting with metastatic hormone refractory prostate cancer.

AU Schulman, C. [Reprint Author]; Dearnaley, D.; Zonnenberg, B.; Coetzee, L.; Hulting, S.; Isaacson, J.; Allen, A.; Sleep, D.

CS Department of Urology, Hopital Erasme Univ. Clinic Brussels, Brussels, Belgium

SO European Urology Supplements, (February 2004) Vol. 3, No. 2, pp. 157. print.

Meeting Info.: 19th Congress of the European Association of Urology. Vienna, Austria. March 24-27, 2004. European Association of Urology. ISSN: 1569-9056 (ISSN print).

DT Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 28 Apr 2004  
Last Updated on STN: 28 Apr 2004

L14 ANSWER 9 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on  
STN  
AN 2003:561996 BIOSIS  
DN PREV200300562040  
TI Endothelin receptor antagonists in the treatment of prostate cancer.  
AU Lassiter, Lance K.; Carducci, Michael A. [Reprint Author]  
CS Division of Medical Oncology, Sidney Kimmel Comprehensive Cancer Center at  
Johns Hopkins, 1650 Orleans St, Room 1M-89, Cancer Research Building,  
Baltimore, MD, 21231, USA  
SO Seminars in Oncology, (October 2003) Vol. 30, No. 5, pp. 678-688. print.  
ISSN: 0093-7754 (ISSN print).  
DT Article  
General Review; (Literature Review)  
LA English  
ED Entered STN: 26 Nov 2003  
Last Updated on STN: 26 Nov 2003

L14 ANSWER 10 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on  
STN  
AN 2003:431813 BIOSIS  
DN PREV200300431813  
TI Gender-specific role of endothelin-1 (ET-1) in pathological bone  
remodeling.  
AU Mohammad, K. S. [Reprint Author]; Yin, J. J. [Reprint Author]; Grubbs, B.  
G. [Reprint Author]; Cui, Y. [Reprint Author]; Padley, R.; Guise, T. A.  
[Reprint Author]  
CS Molecular Medicine, CTRC, UTHSCSA, IDD, San Antonio, TX, USA  
SO Journal of Bone and Mineral Research, (September 2002) Vol. 17, No. Suppl  
1, pp. S311. print.  
Meeting Info.: Twenty-Fourth Annual Meeting of the American Society for  
Bone and Mineral Research. San Antonio, Texas, USA. September 20-24, 2002.  
American Society for Bone and Mineral Research.  
ISSN: 0884-0431 (ISSN print).  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 17 Sep 2003  
Last Updated on STN: 17 Sep 2003

L14 ANSWER 11 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on  
STN  
AN 2003:389985 BIOSIS  
DN PREV200300389985  
TI Treatments for improving survival of patients with prostate cancer.  
AU David, Alice K.; Khwaja, Radhika; Hudes, Gary R. [Reprint Author]  
CS Department of Medical Oncology, Fox Chase Cancer Center, 7701 Burholme  
Avenue, Philadelphia, PA, 19111, USA  
g\_hudes@fccc.edu  
SO Drugs & Aging, (2003) Vol. 20, No. 9, pp. 683-699. print.  
ISSN: 1170-229X (ISSN print).  
DT Article  
General Review; (Literature Review)  
LA English  
ED Entered STN: 20 Aug 2003  
Last Updated on STN: 18 Sep 2003

L14 ANSWER 12 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on  
STN  
AN 2003:125326 BIOSIS  
DN PREV200300125326  
TI Role of endothelin-1 in osteoblastic **bone metastases**.

AU Guise, Theresa A. [Reprint Author]; Yin, Juan Juan; Mohammad, Khalid S.  
CS Department of Medicine, Division of Endocrinology and Metabolism,  
University of Virginia, Aurbach Medical Research Building, PO Box 801419,  
Charlottesville, VA, 22908, USA  
tag4n@virginia.edu  
SO Cancer, (February 1 2003) Vol. 97, No. 3 Supplement, pp. 779-784. print.  
ISSN: 0008-543X (ISSN print).  
DT Article  
General Review; (Literature Review)  
LA English  
ED Entered STN: 5 Mar 2003  
Last Updated on STN: 5 Mar 2003  
AB BACKGROUND: Certain solid tumors metastasize to bone and cause an  
osteoblastic response. The mechanisms by which tumor cells stimulate this  
new bone formation are not completely understood. METHODS: The authors  
identified three breast cancer lines that cause osteoblastic metastases in  
female nude mice and provided evidence that tumor-produced endothelin-1  
(ET-1) mediates the osteoblastic response. RESULTS: Tumor conditioned  
media, as well as exogenous ET-1, stimulated osteoblast proliferation and  
new bone formation in cultures of mouse calvariae. These effects were  
blocked by antagonists of the endothelin A (ETA), but not ETB, receptors.  
Mice inoculated with the ZR-75-1 breast cancer line and treated with a  
selective ETA receptor antagonist (ABT-627) had significantly fewer  
osteoblastic **bone metastases** and less tumor burden  
compared with untreated mice. In contrast, there was no effect of ABT-627  
on osteolytic **bone metastases** caused by ET-1-negative  
breast cancer, MDA-MB-231. ABT-627 had no effect on growth in vitro or at  
the orthotopic site of ZR-75-1 or MDA-MB-231 cells. CONCLUSIONS:  
Collectively, the data suggested that tumor-produced ET-1 mediates  
osteoblastic **bone metastases** by stimulating osteoblast  
proliferation and new bone formation. ETA receptor blockade may be useful  
for prevention and the treatment of osteoblastic **bone  
metastases** due to breast or prostate cancer.

L14 ANSWER 13 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on  
STN  
AN 2002:394721 BIOSIS  
DN PREV200200394721  
TI Endothelin-1 dependent and independent mechanisms concur in the increased  
bone mass of prostate cancer **bone metastases**.  
AU Yang, Jun [Reprint author]; Fizazi, Karim; Peleg, Sara; Sikes, Charles R.;  
Raymond, Austin K.; Vazquez, Elba S.; Daliani, Danai; Janus, Todd;  
Logothetis, Christopher J.; Karsenty, Gerard; Navone, Nora M.  
CS MD Anderson Cancer Center, Houston, TX, USA  
SO Proceedings of the American Association for Cancer Research Annual  
Meeting, (March, 2002) Vol. 43, pp. 315. print.  
Meeting Info.: 93rd Annual Meeting of the American Association for Cancer  
Research. San Francisco, California, USA. April 06-10, 2002.  
ISSN: 0197-016X.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 24 Jul 2002  
Last Updated on STN: 24 Jul 2002

L14 ANSWER 14 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on  
STN  
AN 2002:142771 BIOSIS  
DN PREV200200142771  
TI Endothelin-1 (ET-1) mediates pathological but not normal bone remodeling.  
AU Mohammad, K. S. [Reprint author]; Yin, J. J.; Grubbs, B. G.; Cui, Y.;  
Padley, R.; Guise, T. A.  
CS Medicine/Endocrinology, UTHSCSA, San Antonio, TX, USA  
SO Breast Cancer Research and Treatment, (October, 2001) Vol. 69, No. 3, pp.

212. print.

Meeting Info.: 24th Annual San Antonio Breast Cancer Symposium. San Antonio, Texas, USA. December 10-13, 2001.

CODEN: BCTRD6. ISSN: 0167-6806.

DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 14 Feb 2002

Last Updated on STN: 26 Feb 2002

L14 ANSWER 15 OF 30 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

AN 2001:406611 BIOSIS

DN PREV200100406611

TI The effects of endothelin-1 and Abt-627, an endothelin-1 antagonist, in an in vitro model of **bone metastases** from prostate cancer.

AU Fizazi, Karim [Reprint author]; Yang, Jun [Reprint author]; Daliani, Danai [Reprint author]; Logothetis, Christopher [Reprint author]; Peleg, Sara [Reprint author]; Navone, Nora M. [Reprint author]

CS MD Anderson Cancer Center, Houston, TX, USA

SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2001) Vol. 42, pp. 231. print.

Meeting Info.: 92nd Annual Meeting of the American Association for Cancer Research. New Orleans, LA, USA. March 24-28, 2001. American Association for Cancer Research.

ISSN: 0197-016X.

DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LA English

ED Entered STN: 22 Aug 2001

Last Updated on STN: 22 Feb 2002

L14 ANSWER 16 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

AN 2004259662 EMBASE

TI Endothelin and the tumorigenic component of bone cancer pain.

AU Peters C.M.; Lindsay T.H.; Pomonis J.D.; Luger N.M.; Ghilardi J.R.; Sevcik M.A.; Mantyh P.W.

CS P.W. Mantyh, Neurosystems Center, 18-208 Moos Tower, University of Minnesota, 515 Delaware Street Southeast, Minneapolis, MN 55455, United States. manty001@umn.edu

SO Neuroscience, (2004) 126/4 (1043-1052).

Refs: 55

ISSN: 0306-4522 CODEN: NRSCDN

PUI S 0306-4522(04)00311-2

CY United Kingdom

DT Journal; Article

FS 005 General Pathology and Pathological Anatomy  
008 Neurology and Neurosurgery  
033 Orthopedic Surgery  
037 Drug Literature Index  
052 Toxicology

LA English

SL English

AB Tumors including sarcomas and breast, prostate, and lung carcinomas frequently grow in or metastasize to the skeleton where they can induce significant bone remodeling and cancer pain. To define products that are released from tumors that are involved in the generation and maintenance of bone cancer pain, we focus here on endothelin-1 (ET-1) and endothelin receptors as several tumors including human prostate and breast have been shown to express high levels of ETs and the application of ETs to peripheral nerves can induce pain. Here we show that in a murine osteolytic 2472 sarcoma model of bone cancer pain, the 2472 sarcoma cells

express high levels of ET-1, but express low or undetectable levels of endothelin A (ET(A)R) or B (ET(B)R) receptors whereas a subpopulation of sensory neurons express the ET(A)R and non-myelinating Schwann cells express the ET(B)R. Acute (10 mg/kg, i.p.) or chronic (10 mg/kg/day, p.o.) administration of the ET(A)R selective antagonist ABT-627 significantly attenuated ongoing and movement-evoked bone cancer pain and chronic administration of ABT-627 reduced several neurochemical indices of peripheral and central sensitization without influencing tumor growth or bone destruction. In contrast, acute treatment (30 mg/kg, i.p.) with the ET(B)R selective antagonist, A-192621 increased several measures of ongoing and movement evoked pain. As tumor expression and release of ET-1 has been shown to be regulated by the local environment, location specific expression and release of ET-1 by tumor cells may provide insight into the mechanisms that underlie the heterogeneity of bone cancer pain that is frequently observed in humans with multiple skeletal metastases. .COPYRG.T. 2004 IBRO. Published by Elsevier Ltd. All rights reserved.

L14 ANSWER 17 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

AN 2004189048 EMBASE

TI PSA relapse prostate cancer: The importance of tailored therapy.

AU Aranha O.; Vaishampayan U.

CS U. Vaishampayan, Department of Internal Medicine, Karmanos Cancer Institute, Wayne State Univ. School of Medicine, Detroit, MI, United States. vaishamu@karmanos.org

SO Urologic Oncology: Seminars and Original Investigations, (2004) 22/1 (62-69).

Refs: 51

ISSN: 1078-1439 CODEN: UOSOAA

PUI S 1078-1439(03)00262-X

CY United States

DT Journal; Conference Article

FS 016 Cancer

028 Urology and Nephrology

036 Health Policy, Economics and Management

037 Drug Literature Index

038 Adverse Reactions Titles

LA English

SL English

AB Prostate specific antigen (PSA) is an invaluable tumor marker in the detection of early prostate cancer as well as a predictor of recurrence after treatment of localized disease. Current practice entails the use of factors such as pretherapy grade, stage and PSA, PSA doubling time, nature of previous therapy and patient age and functional status for a treatment recommendation. For a PSA relapse post radical prostatectomy, radiation therapy to the prostatic fossa is a primary therapeutic consideration. With careful patient selection, about 30 to 40% of patients are rendered disease free using this approach. For patients with radiation therapy as the primary treatment for their prostate cancer, salvage prostatectomy can be considered, but is rarely feasible. Systemic therapy with hormones is standard if patients are not candidates for the above mentioned salvage local therapies or if they relapse after exhaustive local therapies. Unfortunately androgen suppressive therapy is unlikely to induce cure, or prolonged remissions in PSA relapse prostate cancer. The strategy of addition of chemotherapy or biologic therapy to androgen suppressive therapy is under active investigation. The goal of this therapy is to make an impact on the time to progression to metastatic prostate cancer and correspondingly decrease prostate cancer related mortality. Preliminary results of studies incorporating early chemotherapy in combination with androgen suppressive therapy are encouraging, with improvement in time to progression and overall survival. The evaluation of biologic agents and agents with better toxicity profiles is ongoing. This is very important to make therapy widely applicable and to enable prolonged administration especially in a disease such as prostate cancer with a relatively long

natural history. Strategies of adjuvant and neoadjuvant therapy in locally advanced prostate cancer are exploring the possibility of reducing the chance of PSA relapse by treating micrometastatic disease. This review discusses the current practices in risk stratification and management of PSA relapse prostate cancer. It also highlights the major clinical trials and areas of active investigation in this field. .COPYRGT. 2004 Elsevier Inc. All rights reserved.

- L14 ANSWER 18 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN
- AN 2003435088 EMBASE
- TI Mechanisms of Osteoblastic Metastases: Role of Endothelin-1.
- AU Mohammad K.S.; Guise T.A.
- CS Dr. T.A. Guise, University of Virginia, Department of Internal Medicine,  
Div. of Endocrinology and Metabolism, 450 Ray C. Hunt Drive,  
Charlottesville, VA 22903, United States. TAG4N@Virginia.edu
- SO Clinical Orthopaedics and Related Research, (2003) -/415 SUPPL. (S67-S74).  
Refs: 67
- ISSN: 0009-921X CODEN: CORTBR
- CY United States
- DT Journal; Conference Article
- FS 016 Cancer  
029 Clinical Biochemistry  
033 Orthopedic Surgery
- LA English
- SL English
- AB Certain solid tumors metastasize to bone, causing an osteoblastic response. The mechanisms by which tumor cells stimulate this new bone formation are not understood completely. We identified three breast cancer lines that cause osteoblastic metastases in female nude mice and provide evidence that tumor-produced endothelin-1 (ET-1) mediates the osteoblastic response. Tumor-conditioned media and exogenous ET-1 stimulated osteoblast proliferation and new bone formation in cultures of calvarias from mice. These effects were blocked by endothelin A (ET(A)) but not by ET(B) receptor antagonists. Mice inoculated with the ZR-75-1 breast cancer line and treated with a selective ET(A) receptor antagonist (ABT-627) had significantly fewer osteoblastic **bone metastases** and less tumor burden compared with untreated mice. In contrast, there was no effect of ABT-627 on osteolytic **bone metastases** caused by ET-1-negative breast cancer, MDA-MB-231. ABT-627 had no effect on cell growth in vitro or at the orthotopic site (mammary fat pad) of ZR-75-1, or MDA-MB-231 cells. Collectively, the data suggest that tumor-produced ET-1 mediates osteoblastic **bone metastases** by stimulating osteoblast proliferation and new bone formation. Endothelin A receptor blockade may be useful for the prevention and treatment of osteoblastic **bone metastases** attributable to breast or prostate cancer.
- L14 ANSWER 19 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN
- AN 2003426429 EMBASE
- TI Endothelin Receptor Antagonists in the Treatment of Prostate Cancer.
- AU Lassiter L.K.; Carducci M.A.
- CS Dr. M.A. Carducci, Division of Medical Oncology, Cancer Research Building,  
Sidney Kimmel Compreh. Cancer Center, 1650 Orleans St, Baltimore, MD  
21231, United States
- SO Seminars in Oncology, (2003) 30/5 (678-688).  
Refs: 72
- ISSN: 0093-7754 CODEN: SOLGAV
- CY United States
- DT Journal; General Review
- FS 016 Cancer  
028 Urology and Nephrology  
030 Pharmacology



037 Drug Literature Index  
038 Adverse Reactions Titles

LA English

SL English

AB The endothelin (ET) axis represents a novel and exciting target in the treatment of prostate cancer. ET-1, acting primarily through the endothelin A receptor (ET(A)), is integrally involved in multiple facets of prostate cancer progression, including cell growth, inhibition of apoptosis, angiogenesis, development and progression of **bone metastases**, and mediation of pain responses. Clinical trials with the ET(A) antagonist, atrasentan, have demonstrated good tolerability, with the most common adverse events being headache, rhinitis, and peripheral edema. These trials have demonstrated statistically significant improvements in pain measures, prostate-specific antigen (PSA) kinetics, biologic markers of bone changes, and development of **bone metastases**. There have also been consistent improvements in time to progression, although not always statistically significant. Ongoing studies in a variety of patient populations will better define the role of ET receptor antagonists in the treatment of men with prostate cancer. In this article, we review the biology and pathophysiology of the ET axis in prostate cancer, critically analyze the major clinical trials reported to date, and discuss some emerging data and how it may impact the way we proceed in the future with the development of this class of drugs in prostate cancer. .COPYRG. 2003 Elsevier Inc. All rights reserved.

L14 ANSWER 20 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

AN 2003402002 EMBASE

TI Skeletal complications of malignancy - Third North American Symposium:  
25-27 April 2002, Bethesda, MD, USA.

AU Bagi C.

CS C. Bagi, Pfizer Inc., Groton Laboratories, Eastern Point Road 8118E/3,  
Groton, CT 06340, United States. cedo\_bagi@groton.pfizer.com

SO IDrugs, (2002) 5/6 (553-556).  
ISSN: 1369-7056 CODEN: IDRUFN

CY United Kingdom

DT Journal; Conference Article

FS 016 Cancer

017 Public Health, Social Medicine and Epidemiology

029 Clinical Biochemistry

030 Pharmacology

037 Drug Literature Index

038 Adverse Reactions Titles

014 Radiology

LA English

SL English

AB Interest in the skeletal complications of malignancy continues to increase rapidly. There are several reasons for this growing trend including an aging population and higher incidence of cancer, improved diagnostic tools, and effective anticancer therapy. In addition, life expectancy is prolonged, in particular those patients suffering from breast and prostate cancer. **Bone metastases** are a frequent event in a variety of cancer types. Dissemination of the carcinomas of the breast and prostate to the skeleton is particularly prevalent and also a notable feature of malignancy originating in the lungs, thyroid and kidneys. Multiple myeloma is a unique neoplastic disorder associated with extensive bone involvement. Important clinical problems that arise from cancer metastases to bone include humoral hypercalcemia of malignancy, cancer-associated osteoporosis and significant implications on the quality of life of cancer patients including bone pain. The major topic of the conference was treatment modalities targeting the prevention of skeletal disease. One particular focus was given to stromal-derived cytokines and growth factors due to evidence which indicates the critical role that bone marrow and stroma play in homing of tumors to the bone and development of

**bone metastases.** .COPYRGT. PharmaPress Ltd.

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on STN  
AN 2003379832 EMBASE  
TI A causal role for endothelin-1 in the pathogenesis of osteoblastic  
**bone metastases.**  
AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale  
J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.  
CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology,  
University of Virginia, P.O. Box 801419, Charlottesville, VA 22908, United  
States. tag4n@virginia.edu  
SO Proceedings of the National Academy of Sciences of the United States of  
America, (16 Sep 2003) 100/19 (10954-10959).  
Refs: 42  
ISSN: 0027-8424 CODEN: PNASA6  
CY United States  
DT Journal; Article  
FS 005 General Pathology and Pathological Anatomy  
016 Cancer  
037 Drug Literature Index  
LA English  
SL English  
AB Osteoblastic **bone metastases** are common in prostate  
and breast cancer patients, but mechanisms by which tumor cells stimulate  
new bone formation are unclear. We identified three breast cancer cell  
lines that cause osteoblastic metastases in a mouse model and secrete  
endothelin-1. Tumor-produced endothelin-1 stimulates new bone formation in  
vitro and osteoblastic metastases in vivo via the endothelin A receptor.  
Treatment with an orally active endothelin A receptor antagonist  
dramatically decreased **bone metastases** and tumor  
burden in mice inoculated with ZR-75-1 cells. Tumor-produced endothelin-1  
may have a major role in the establishment of osteoblastic **bone**  
**metastases**, and endothelin A receptor blockade represents  
effective treatment.
- L14 ANSWER 22 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
AN 2003296046 EMBASE  
TI New approaches for the prevention of **bone metastases**  
in patients with prostate cancer: A review of preclinical and clinical  
studies.  
AU Lassiter L.K.; Carducci M.A.  
CS Dr. M.A. Carducci, Division of Medical Oncology, Sidney Kimmel Compreh. C.  
C. J. H., Cancer Research Building, 1650 Orleans St., Baltimore, MD 21231,  
United States. carducci@jhmi.edu  
SO American Journal of Cancer, (2003) 2/3 (181-199).  
Refs: 197  
ISSN: 1175-6357 CODEN: AJCMCB  
CY New Zealand  
DT Journal; General Review  
FS 016 Cancer  
028 Urology and Nephrology  
033 Orthopedic Surgery  
037 Drug Literature Index  
038 Adverse Reactions Titles  
LA English  
SL English  
AB **Bone metastases** are the most frequent complication of  
advanced prostate cancer and are responsible for the vast majority of  
disease-related morbidity and mortality. With the extensive number of  
predictive models for patients with prostate cancer, we can now determine  
to some degree which patients are at highest risk for progression to  
metastatic bone disease and therefore might benefit from earlier or more

aggressive therapy. Combining this with our better understanding of the molecular biology underlying the progression to **bone metastasis**, we are able to identify more specific targets or pathways to approach therapeutically to prevent or delay the development of metastatic bone disease. General strategies for the prevention of **bone metastases** include bone-targeting approaches, antimetastatic therapies, and purely antineoplastic agents. Bisphosphonates comprise the most studied and effective of the bone-targeted agents and now have relatively sound clinical data supporting their role not only in the treatment of **bone metastases**, but also in the secondary prevention and, in some cases, primary prevention, of new skeletal complications. Their ease of administration and relatively low short- and long-term toxicities make them ideal for potential treatment earlier in the disease process as well. Radioisotopes have been studied and used for decades for the treatment of painful **bone metastases** but only recently have data accumulated demonstrating their efficacy in the prevention of new metastases. The endothelin receptor antagonist, atrasentan, has recently been shown to delay the progression of systemic disease and potentially improve survival in patients with prostate cancer. It appears to do so, at least in part, by bone-targeting mechanisms. Antimetastatic strategies are also promising for the prevention of **bone metastases** and include matrix metalloproteinase inhibitors, gene therapy, and other novel approaches, such as inhibiting tyrosine kinases or NF $\kappa$ B and immunomodulation of prostate stem cell antigens. Utilizing standard hormonal or cytotoxic therapies in the adjuvant setting has also been studied extensively and in certain groups of patients may provide meaningful clinical benefit in preventing or delaying systemic progression, including **bone metastases**. Finally, as we learn more about molecular synergies with various agents, combinations of these approaches with each other or with more traditional hormonal or chemotherapy agents may be even more effective in the prevention of **bone metastases** in patients with prostate cancer.

- L14 ANSWER 23 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN
- AN 2003126896 EMBASE
- TI The role of endothelin in hormone-refractory prostate cancer.
- AU Zonnenberg B.A.; Voest E.E.
- CS E.E. Voest, Department of Medicinal Oncology, University Medical Center  
Utrecht, Heidelberglaan 100, 3584 CX Utrecht, Netherlands.  
e.e.voest@azu.nl
- SO European Urology, Supplement, (2003) 2/3 (9-14).  
Refs: 43  
ISSN: 1569-9056 CODEN: EUSUAU
- CY Netherlands
- DT Journal; General Review
- FS 005 General Pathology and Pathological Anatomy  
016 Cancer  
028 Urology and Nephrology  
037 Drug Literature Index  
038 Adverse Reactions Titles
- LA English
- SL English
- AB Aggressive chemotherapy has made only a limited contribution to improvements in patient prognosis and well-being in hormone-refractory prostate cancer (HRPC). Such poor progress results from the biological basis of the disease, localisation of the tumour and the relatively high age of affected men, and leaves patients with a dismal prognosis. Given the palliative role of current treatments, attention has focused on the development of therapies targeted at non-androgenic mediators of prostate growth. Endothelin-1 (ET-1), a 21-amino-acid peptide produced by endothelial cells and prevalent in seminal fluid, has been identified as one such mediator. In addition to its potent mitogenic and

vasoconstrictive properties, ET-1 has been shown to suppress apoptosis and induce angiogenesis. In HRPC cells, increased levels of ET-1 have been observed. ET-1 mediates its effects through two receptors, of which the endothelin-A (ET(A)) receptor is most important in prostate cancer. An up-regulation of ET(A) receptor levels and decreased expression of endothelin-B (ET(B)) receptors is observed in HRPC cells. Taken together, these factors are thought to play a significant role in the progression of the disease. Research has, therefore, focused on development of ET-1 antagonists to disrupt the mitogenic and angiogenic effects of ET-1 and slow disease progression. As ET-1 is also an important factor in the development of new bone, ET-1 antagonists may potentially inhibit the development of skeletal metastases and associated pain, which characterise this disease. Atrasentan, a highly specific ET(A) receptor antagonist, is currently in clinical development. Data are awaited from clinical trials to confirm the role of this agent in the treatment of HRPC. .COPYRGHT. 2003 Elsevier Science B.V. All rights reserved.

- L14 ANSWER 24 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
AN 2001272389 EMBASE  
TI News from the 37th annual meeting of the American society of clinical  
oncologists.  
AU Wapner J.  
SO Oncology Spectrums, (2001) 2/6 (378-379).  
ISSN: 1532-8554 CODEN: OENCAH  
CY United States  
DT Journal; Article  
FS 016 Cancer  
036 Health Policy, Economics and Management  
037 Drug Literature Index  
038 Adverse Reactions Titles  
LA English
- L14 ANSWER 25 OF 30 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
AN 2001229203 EMBASE  
TI New drugs slow progression of prostate cancer.  
SO European Journal of Cancer, (2001) 37/11 (1325).  
ISSN: 0959-8049 CODEN: EJCAEL  
PUI S 0959-8049(01)00194-0  
CY United Kingdom  
DT Journal; Note  
FS 016 Cancer  
037 Drug Literature Index  
LA English
- L14 ANSWER 26 OF 30 TOXCENTER COPYRIGHT 2004 ACS on STN  
AN 2003:290353 TOXCENTER  
CP Copyright 2004 ACS  
DN CA13926390556G  
TI Endothelin receptor antagonists in the treatment of prostate cancer  
AU Lassiter, Lance K.; Carducci, Michael A.  
CS Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, Baltimore, MD,  
21231, USA.  
SO Seminars in Oncology, (2003) Vol. 30, No. 5, pp. 678-688.  
CODEN: SOLGAV. ISSN: 0093-7754.  
CY UNITED STATES  
DT Journal  
FS CAPLUS  
OS CAPLUS 2003:925734  
LA English  
ED Entered STN: 20031216  
Last Updated on STN: 20031223  
AB A review. The endothelin (ET) axis represents a novel and exciting target

in the treatment of prostate cancer. ET-1, acting primarily through the endothelin A receptor (ETA), is integrally involved in multiple facets of prostate cancer progression, including cell growth, inhibition of apoptosis, angiogenesis, development and progression of **bone metastases**, and mediation of pain responses. Clin. trials with the ETA antagonist, atrasentan, have demonstrated good tolerability, with the most common adverse events being headache, rhinitis, and peripheral edema. These trials have demonstrated statistically significant improvements in pain measures, prostate-specific antigen (PSA) kinetics, biol. markers of bone changes, and development of **bone metastases**. There have also been consistent improvements in time to progression, although not always statistically significant. Ongoing studies in a variety of patient populations will better define the role of ET receptor antagonists in the treatment of men with prostate cancer. In this article, we review the biol. and pathophysiol. of the ET axis in prostate cancer, critically analyze the major clin. trials reported to date, and discuss some emerging data and how it may impact the way we proceed in the future with the development of this class of drugs in prostate cancer.

L14 ANSWER 27 OF 30 TOXCENTER COPYRIGHT 2004 ACS on STN  
 AN 2003:282510 TOXCENTER  
 CP Copyright 2004 BIOSIS  
 DN PREV200300562040  
 TI Endothelin receptor antagonists in the treatment of prostate cancer  
 AU Lassiter, Lance K.; Carducci, Michael A. [Reprint Author]  
 CS Division of Medical Oncology, Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins, 1650 Orleans St, Room 1M-89, Cancer Research Building, Baltimore, MD, 21231, USA  
 SO Seminars in Oncology, (October 2003) Vol. 30, No. 5, pp. 678-688. print. ISSN: 0093-7754 (ISSN print).  
 DT Article  
 General Review; (Literature Review)  
 FS BIOSIS  
 OS BIOSIS 2003:561996  
 LA English  
 ED Entered STN: 20031202  
 Last Updated on STN: 20031202

L14 ANSWER 28 OF 30 TOXCENTER COPYRIGHT 2004 ACS on STN  
 AN 2003:247216 TOXCENTER  
 CP Copyright 2004 ACS  
 DN CA13918270402G  
 TI Suppression of Prostate Cancer Induced Bone Remodeling by The Endothelin Receptor A Antagonist Atrasentan  
 AU Nelson, Joel B.; Nabulsi, Azmi A.; Vogelzang, Nicholas J.; Breul, Jurgen; Zonnenberg, Bernard A.; Daliani, Danai D.; Schulman, Claude C.; Carducci, Michael A.  
 CS Sidney Kimmel Comprehensive Cancer Cent., The Johns Hopkins Univ. Sch. Med., Baltimore, MD, USA.  
 SO Journal of Urology (Hagerstown, MD, United States), (2003) Vol. 169, No. 3, pp. 1143-1149.  
 CODEN: JOURAA. ISSN: 0022-5347.  
 CY UNITED STATES  
 DT Journal  
 FS CAPLUS  
 OS CAPLUS 2003:124519  
 LA English  
 ED Entered STN: 20031014  
 Last Updated on STN: 20031028  
 AB We examined the effects of atrasentan (endothelin-A receptor antagonist) on bone deposition and resorption markers and on bone scan index. This double-blind, randomized, placebo controlled clin. trial of hormone refractory prostate cancer patients was done at 74 medical centers in the

United States and Europe. A total of 288 asymptomatic patients with hormone refractory prostate adenocarcinoma and evidence of metastatic disease were randomized to 1 of 3 treatment groups, namely 2.5 mg. atrasentan, 10 mg. atrasentan or placebo administered orally daily until disease progression. The main outcomes measures were changes in bone deposition markers (total alkaline phosphatase and bone alkaline phosphatase)

and

bone resorption (N-telopeptides, C-telopeptides and deoxypyridinoline), and in the bone scan index. At baseline markers of bone deposition and resorption were elevated 1.4 to 2.7-fold above resp. upper limits of normal. Subjects receiving placebo experienced a 58% elevation in mean total alkaline phosphatase and a 99% elevation in mean bone alkaline phosphatase

phosphatase

( $p < 0.001$ ), whereas subjects receiving 10 mg. atrasentan maintained stable mean total alkaline phosphatase and bone alkaline phosphatase values compared

with

baseline. N-telopeptides, C-telopeptides and deoxypyridinoline elevation from baseline were consistently less in patients receiving 10 mg. atrasentan compared with placebo. Similar trends were observed in subjects who received 2.5 mg. atrasentan. Changes in clin. bone scan studies paralleled bone marker changes. Atrasentan suppressed markers of biochem. and **bone metastasis** and demonstrates clin. activity for hormone refractory prostate cancer.

L14 ANSWER 29 OF 30 TOXCENTER COPYRIGHT 2004 ACS on STN

AN 2002:120290 TOXCENTER

CP Copyright 2004 ACS

DN CA13623350550G

TI Methods of treating cancer and the pain associated therewith using endothelin antagonists

AU Janus, Todd J.; Padley, Robert J.

PI US 2002055457 A1 9 May 2002

SO (2002) U.S. Pat. Appl. Publ., 24 pp.

CODEN: USXXCO.

CY UNITED STATES

DT Patent

FS CAPLUS

OS CAPLUS 2002:354070

LA English

ED Entered STN: 20020528

Last Updated on STN: 20030624

AB The instant invention is directed to methods for the inhibition of **bone metastases**, methods for the prevention of growth of new metastases, methods for the inhibition of bone turnover, and methods for the prevention of bone loss in patients, including cancer patients, using an endothelin ET-A receptor antagonist.

L14 ANSWER 30 OF 30 TOXCENTER COPYRIGHT 2004 ACS on STN

AN 2002:57459 TOXCENTER

CP Copyright 2004 ACS

DN CA13611161346J

TI Methods of treating cancer and the pain associated therewith using endothelin antagonists

AU Janus, Todd J.; Padley, Robert J.

CS ASSIGNEE: Abbott Laboratories

PI WO 2002011713 A2 14 Feb 2002

SO (2002) PCT Int. Appl., 86 pp.

CODEN: PIXXD2.

CY UNITED STATES

DT Patent

FS CAPLUS

OS CAPLUS 2002:122776

LA English

ED Entered STN: 20020305

Last Updated on STN: 20030624

AB The instant invention is directed to methods for the inhibition of **bone metastases**, methods for the prevention of growth of new metastases, methods for the inhibition of bone turnover, and methods for the prevention of bone loss in patients, including cancer patients, using an endothelin ET-A receptor antagonist.

=> d 115 1-9 bib abs

YOU HAVE REQUESTED DATA FROM FILE 'CAPLUS, USPATFULL, BIOTECHNO, BIOSIS, EMBASE' -  
CONTINUE? (Y)/N:y

L15 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:354796 CAPLUS

DN 140:368653

TI Endothelin receptor antagonist-EGF receptor tyrosine kinase inhibitor combination for the treatment of cancer

IN Boyle, Francis Thomas; Curwen, Jon Owen; Gallagher, Neil James; Hancox, Ursula Joy; Hughes, Andrew Mark; Johnstone, Donna; Taylor, Sian Tomiko; Tonge, David William

PA Astrazeneca AB, Swed.; Astrazeneca UK Limited

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	WO 2004035057	A1	20040429	WO 2003-GB4347	20031007
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI GB 2002-23854 A 20021012

AB A combination, comprising an endothelin receptor antagonist (e.g. ZD4054), or a pharmaceutically acceptable salt thereof, and an EGF receptor tyrosine kinase inhibitor (e.g. ZD1839), or a pharmaceutically acceptable salt thereof, is described. The combination of the invention is useful for the treatment of cancer, e.g. prostate cancer.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 9 USPATFULL on STN

AN 2002:106248 USPATFULL

TI Methods of treating cancer and the pain associated therewith using endothelin antagonists

IN Janus, Todd J., Gurnee, IL, UNITED STATES

Padley, Robert J., Lake Bluff, IL, UNITED STATES

PI US 2002055457 A1 20020509

AI US 2001-923616 A1 20010806 (9)

PRAI US 2000-223486P 20000807 (60)

DT Utility

FS APPLICATION

LREP Steven F. Weinstock, Abbott Laboratories, D-377/AP6D, 100 Abbott Park Road, Abbott Park, IL, 60064-6050

CLMN Number of Claims: 58  
ECL Exemplary Claim: 1  
DRWN 7 Drawing Page(s)  
LN.CNT 1394

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The instant invention is directed to methods for the inhibition of bone metastases, methods for the prevention of growth of new metastases, methods for the inhibition of bone turnover, and methods for the prevention of bone loss in patients, including cancer patients, using an endothelin ET-A receptor antagonist.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 9 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN  
AN 2003:37140134 BIOTECHNO  
TI A causal role for endothelin-1 in the pathogenesis of  
**osteoblastic** bone metastases  
AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.  
CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology, University of Virginia, P.O. Box 801419, Charlottesville, VA 22908, United States.  
E-mail: tag4n@virginia.edu  
SO Proceedings of the National Academy of Sciences of the United States of America, (16 SEP 2003), 100/19 (10954-10959), 42 reference(s)  
CODEN: PNASA6 ISSN: 0027-8424  
DT Journal; Article  
CY United States  
LA English  
SL English  
AB **Osteoblastic** bone metastases are common in prostate and breast cancer patients, but mechanisms by which tumor cells stimulate new bone formation are unclear. We identified three breast cancer cell lines that cause **osteoblastic** metastases in a mouse model and secrete endothelin-1. Tumor-produced endothelin-1 stimulates new bone formation in vitro and **osteoblastic** metastases in vivo via the endothelin A receptor. Treatment with an orally active endothelin A receptor antagonist dramatically decreased bone metastases and tumor burden in mice inoculated with ZR-75-1 cells. Tumor-produced endothelin-1 may have a major role in the establishment of **osteoblastic** bone metastases, and endothelin A receptor blockade represents effective treatment.

L15 ANSWER 4 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
AN 2003:125326 BIOSIS  
DN PREV200300125326  
TI Role of endothelin-1 in **osteoblastic** bone metastases.  
AU Guise, Theresa A. [Reprint Author]; Yin, Juan Juan; Mohammad, Khalid S.  
CS Department of Medicine, Division of Endocrinology and Metabolism, University of Virginia, Aurbach Medical Research Building, PO Box 801419, Charlottesville, VA, 22908, USA  
tag4n@virginia.edu  
SO Cancer, (February 1 2003) Vol. 97, No. 3 Supplement, pp. 779-784. print.  
ISSN: 0008-543X (ISSN print).  
DT Article  
General Review; (Literature Review)  
LA English  
ED Entered STN: 5 Mar 2003  
Last Updated on STN: 5 Mar 2003  
AB BACKGROUND: Certain solid tumors metastasize to bone and cause an **osteoblastic** response. The mechanisms by which tumor cells stimulate this new bone formation are not completely understood. METHODS: The authors identified three breast cancer lines that cause **osteoblastic** metastases in female nude mice and provided evidence



that tumor-produced endothelin-1 (ET-1) mediates the **osteoblastic** response. RESULTS: Tumor conditioned media, as well as exogenous ET-1, stimulated **osteoblast** proliferation and new bone formation in cultures of mouse calvariae. These effects were blocked by antagonists of the endothelin A (ETA), but not ETB, receptors. Mice inoculated with the ZR-75-1 breast cancer line and treated with a selective ETA receptor antagonist (ABT-627) had significantly fewer **osteoblastic** bone metastases and less tumor burden compared with untreated mice. In contrast, there was no effect of ABT-627 on osteolytic bone metastases caused by ET-1-negative breast cancer, MDA-MB-231. ABT-627 had no effect on growth in vitro or at the orthotopic site of ZR-75-1 or MDA-MB-231 cells. CONCLUSIONS: Collectively, the data suggested that tumor-produced ET-1 mediates **osteoblastic** bone metastases by stimulating **osteoblast** proliferation and new bone formation. ETA receptor blockade may be useful for prevention and the treatment of **osteoblastic** bone metastases due to breast or prostate cancer.

L15 ANSWER 5 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
 AN 2002:394721 BIOSIS  
 DN PREV200200394721  
 TI Endothelin-1 dependent and independent mechanisms concur in the increased bone mass of prostate cancer bone metastases.  
 AU Yang, Jun [Reprint author]; Fizazi, Karim; Peleg, Sara; Sikes, Charles R.; Raymond, Austin K.; Vazquez, Elba S.; Daliani, Danai; Janus, Todd; Logothetis, Christopher J.; Karsenty, Gerard; Navone, Nora M.  
 CS MD Anderson Cancer Center, Houston, TX, USA  
 SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2002) Vol. 43, pp. 315. print.  
 Meeting Info.: 93rd Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA. April 06-10, 2002. ISSN: 0197-016X.  
 DT Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 24 Jul 2002  
 Last Updated on STN: 24 Jul 2002

L15 ANSWER 6 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
 AN 2002:142771 BIOSIS  
 DN PREV200200142771  
 TI Endothelin-1 (ET-1) mediates pathological but not normal bone remodeling.  
 AU Mohammad, K. S. [Reprint author]; Yin, J. J.; Grubbs, B. G.; Cui, Y.; Padley, R.; Guise, T. A.  
 CS Medicine/Endocrinology, UTHSCSA, San Antonio, TX, USA  
 SO Breast Cancer Research and Treatment, (October, 2001) Vol. 69, No. 3, pp. 212. print.  
 Meeting Info.: 24th Annual San Antonio Breast Cancer Symposium. San Antonio, Texas, USA. December 10-13, 2001. CODEN: BCTRD6. ISSN: 0167-6806.  
 DT Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 14 Feb 2002  
 Last Updated on STN: 26 Feb 2002

L15 ANSWER 7 OF 9 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
 AN 2001:406611 BIOSIS  
 DN PREV200100406611  
 TI The effects of endothelin-1 and Abt-627, an endothelin-1 antagonist, in an in vitro model of bone metastases from prostate cancer.  
 AU Fizazi, Karim [Reprint author]; Yang, Jun [Reprint author]; Daliani, Danai [Reprint author]; Logothetis, Christopher [Reprint author]; Peleg, Sara [Reprint author]; Navone, Nora M. [Reprint author]  
 CS MD Anderson Cancer Center, Houston, TX, USA

- SO Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2001) Vol. 42, pp. 231. print.  
Meeting Info.: 92nd Annual Meeting of the American Association for Cancer Research. New Orleans, LA, USA. March 24-28, 2001. American Association for Cancer Research.  
ISSN: 0197-016X.
- DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)
- LA English
- ED Entered STN: 22 Aug 2001  
Last Updated on STN: 22 Feb 2002
- L15 ANSWER 8 OF 9 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN
- AN 2003435088 EMBASE
- TI Mechanisms of **Osteoblastic** Metastases: Role of Endothelin-1.
- AU Mohammad K.S.; Guise T.A.
- CS Dr. T.A. Guise, University of Virginia, Department of Internal Medicine, Div. of Endocrinology and Metabolism, 450 Ray C. Hunt Drive, Charlottesville, VA 22903, United States. TAG4N@Virginia.edu
- SO Clinical Orthopaedics and Related Research, (2003) -/415 SUPPL. (S67-S74).  
Refs: 67  
ISSN: 0009-921X CODEN: CORTBR
- CY United States
- DT Journal; Conference Article
- FS 016 Cancer  
029 Clinical Biochemistry  
033 Orthopedic Surgery
- LA English
- SL English
- AB Certain solid tumors metastasize to bone, causing an **osteoblastic** response. The mechanisms by which tumor cells stimulate this new bone formation are not understood completely. We identified three breast cancer lines that cause **osteoblastic** metastases in female nude mice and provide evidence that tumor-produced endothelin-1 (ET-1) mediates the **osteoblastic** response. Tumor-conditioned media and exogenous ET-1 stimulated **osteoblast** proliferation and new bone formation in cultures of calvarias from mice. These effects were blocked by endothelin A (ET(A)) but not by ET(B) receptor antagonists. Mice inoculated with the ZR-75-1 breast cancer line and treated with a selective ET(A) receptor antagonist (ABT-627) had significantly fewer **osteoblastic** bone metastases and less tumor burden compared with untreated mice. In contrast, there was no effect of ABT-627 on osteolytic bone metastases caused by ET-1-negative breast cancer, MDA-MB-231. ABT-627 had no effect on cell growth in vitro or at the orthotopic site (mammary fat pad) of ZR-75-1, or MDA-MB-231 cells. Collectively, the data suggest that tumor-produced ET-1 mediates **osteoblastic** bone metastases by stimulating **osteoblast** proliferation and new bone formation. Endothelin A receptor blockade may be useful for the prevention and treatment of **osteoblastic** bone metastases attributable to breast or prostate cancer.
- L15 ANSWER 9 OF 9 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN
- AN 2003379832 EMBASE
- TI A causal role for endothelin-1 in the pathogenesis of **osteoblastic** bone metastases.
- AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.
- CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology, University of Virginia, P.O. Box 801419, Charlottesville, VA 22908, United States. tag4n@virginia.edu
- SO Proceedings of the National Academy of Sciences of the United States of America, (16 Sep 2003) 100/19 (10954-10959).

Refs: 42

ISSN: 0027-8424 CODEN: PNASA6

CY United States

DT Journal; Article

FS 005 General Pathology and Pathological Anatomy

016 Cancer

037 Drug Literature Index

LA English

SL English

AB **Osteoblastic** bone metastases are common in prostate and breast cancer patients, but mechanisms by which tumor cells stimulate new bone formation are unclear. We identified three breast cancer cell lines that cause **osteoblastic** metastases in a mouse model and secrete endothelin-1. Tumor-produced endothelin-1 stimulates new bone formation in vitro and **osteoblastic** metastases in vivo via the endothelin A receptor. Treatment with an orally active endothelin A receptor antagonist dramatically decreased bone metastases and tumor burden in mice inoculated with ZR-75-1 cells. Tumor-produced endothelin-1 may have a major role in the establishment of **osteoblastic** bone metastases, and endothelin A receptor blockade represents effective treatment.

=> d l16 1-8 bib abs

YOU HAVE REQUESTED DATA FROM FILE 'USPATFULL, BIOTECHNO, BIOSIS, EMBASE' -  
CONTINUE? (Y)/N:y

L16 ANSWER 1 OF 8 USPATFULL on STN

AN 2002:106248 USPATFULL

TI Methods of treating cancer and the pain associated therewith using  
endothelin antagonists

IN Janus, Todd J., Gurnee, IL, UNITED STATES

Padley, Robert J., Lake Bluff, IL, UNITED STATES

PI US 2002055457 A1 20020509

AI US 2001-923616 A1 20010806 (9)

PRAI US 2000-223486P 20000807 (60)

DT Utility

FS APPLICATION

LREP Steven F. Weinstock, Abbott Laboratories, D-377/AP6D, 100 Abbott Park  
Road, Abbott Park, IL, 60064-6050

CLMN Number of Claims: 58

ECL Exemplary Claim: 1

DRWN 7 Drawing Page(s)

LN.CNT 1394

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The instant invention is directed to methods for the inhibition of  
**bone metastases**, methods for the prevention of growth  
of new metastases, methods for the inhibition of bone turnover, and  
methods for the prevention of bone loss in patients, including cancer  
patients, using an endothelin ET-A receptor antagonist.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L16 ANSWER 2 OF 8 BIOTECHNO COPYRIGHT 2004 Elsevier Science B.V. on STN

AN 2003:37140134 BIOTECHNO

TI A causal role for endothelin-1 in the pathogenesis of  
**osteoblastic bone metastases**

AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale  
J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.

CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology,  
University of Virginia, P.O. Box 801419, Charlottesville, VA 22908,  
United States.

E-mail: tag4n@virginia.edu

SO Proceedings of the National Academy of Sciences of the United States of America, (16 SEP 2003), 100/19 (10954-10959), 42 reference(s)  
 CODEN: PNASA6 ISSN: 0027-8424

DT Journal; Article  
 CY United States  
 LA English  
 SL English

AB **Osteoblastic bone metastases** are common in prostate and breast cancer patients, but mechanisms by which tumor cells stimulate new bone formation are unclear. We identified three breast cancer cell lines that cause **osteoblastic** metastases in a mouse model and secrete endothelin-1. Tumor-produced endothelin-1 stimulates new bone formation in vitro and **osteoblastic** metastases in vivo via the endothelin A receptor. Treatment with an orally active endothelin A receptor antagonist dramatically decreased **bone metastases** and tumor burden in mice inoculated with ZR-75-1 cells. Tumor-produced endothelin-1 may have a major role in the establishment of **osteoblastic bone metastases**, and endothelin A receptor blockade represents effective treatment.

L16 ANSWER 3 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
 AN 2003:125326 BIOSIS  
 DN PREV200300125326  
 TI Role of endothelin-1 in **osteoblastic bone metastases**.

AU Guise, Theresa A. [Reprint Author]; Yin, Juan Juan; Mohammad, Khalid S.  
 CS Department of Medicine, Division of Endocrinology and Metabolism, University of Virginia, Aurbach Medical Research Building, PO Box 801419, Charlottesville, VA, 22908, USA  
 tag4n@virginia.edu

SO Cancer, (February 1 2003) Vol. 97, No. 3 Supplement, pp. 779-784. print.  
 ISSN: 0008-543X (ISSN print).

DT Article  
 General Review; (Literature Review)

LA English  
 ED Entered STN: 5 Mar 2003  
 Last Updated on STN: 5 Mar 2003

AB BACKGROUND: Certain solid tumors metastasize to bone and cause an **osteoblastic** response. The mechanisms by which tumor cells stimulate this new bone formation are not completely understood. METHODS: The authors identified three breast cancer lines that cause **osteoblastic** metastases in female nude mice and provided evidence that tumor-produced endothelin-1 (ET-1) mediates the **osteoblastic** response. RESULTS: Tumor conditioned media, as well as exogenous ET-1, stimulated **osteoblast** proliferation and new bone formation in cultures of mouse calvariae. These effects were blocked by antagonists of the endothelin A (ETA), but not ETB, receptors. Mice inoculated with the ZR-75-1 breast cancer line and treated with a selective ETA receptor antagonist (ABT-627) had significantly fewer **osteoblastic bone metastases** and less tumor burden compared with untreated mice. In contrast, there was no effect of ABT-627 on osteolytic **bone metastases** caused by ET-1-negative breast cancer, MDA-MB-231. ABT-627 had no effect on growth in vitro or at the orthotopic site of ZR-75-1 or MDA-MB-231 cells. CONCLUSIONS: Collectively, the data suggested that tumor-produced ET-1 mediates **osteoblastic bone metastases** by stimulating **osteoblast** proliferation and new bone formation. ETA receptor blockade may be useful for prevention and the treatment of **osteoblastic bone metastases** due to breast or prostate cancer.

L16 ANSWER 4 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
 AN 2002:394721 BIOSIS  
 DN PREV200200394721  
 TI Endothelin-1 dependent and independent mechanisms concur in the increased

bone mass of prostate cancer **bone metastases**.

AU Yang, Jun [Reprint author]; Fizazi, Karim; Peleg, Sara; Sikes, Charles R.;  
Raymond, Austin K.; Vazquez, Elba S.; Daliani, Danai; Janus, Todd;  
Logothetis, Christopher J.; Karsenty, Gerard; Navone, Nora M.  
CS MD Anderson Cancer Center, Houston, TX, USA  
SO Proceedings of the American Association for Cancer Research Annual  
Meeting, (March, 2002) Vol. 43, pp. 315. print.  
Meeting Info.: 93rd Annual Meeting of the American Association for Cancer  
Research. San Francisco, California, USA. April 06-10, 2002.  
ISSN: 0197-016X.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 24 Jul 2002  
Last Updated on STN: 24 Jul 2002

L16 ANSWER 5 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
AN 2002:142771 BIOSIS  
DN PREV200200142771  
TI Endothelin-1 (ET-1) mediates pathological but not normal bone remodeling.  
AU Mohammad, K. S. [Reprint author]; Yin, J. J.; Grubbs, B. G.; Cui, Y.;  
Padley, R.; Guise, T. A.  
CS Medicine/Endocrinology, UTHSCSA, San Antonio, TX, USA  
SO Breast Cancer Research and Treatment, (October, 2001) Vol. 69, No. 3, pp.  
212. print.  
Meeting Info.: 24th Annual San Antonio Breast Cancer Symposium. San  
Antonio, Texas, USA. December 10-13, 2001.  
CODEN: BCTRD6. ISSN: 0167-6806.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 14 Feb 2002  
Last Updated on STN: 26 Feb 2002

L16 ANSWER 6 OF 8 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN  
AN 2001:406611 BIOSIS  
DN PREV200100406611  
TI The effects of endothelin-1 and Abt-627, an endothelin-1 antagonist, in an  
in vitro model of **bone metastases** from prostate  
cancer.  
AU Fizazi, Karim [Reprint author]; Yang, Jun [Reprint author]; Daliani, Danai  
[Reprint author]; Logothetis, Christopher [Reprint author]; Peleg, Sara  
[Reprint author]; Navone, Nora M. [Reprint author]  
CS MD Anderson Cancer Center, Houston, TX, USA  
SO Proceedings of the American Association for Cancer Research Annual  
Meeting, (March, 2001) Vol. 42, pp. 231. print.  
Meeting Info.: 92nd Annual Meeting of the American Association for Cancer  
Research. New Orleans, LA, USA. March 24-28, 2001. American Association  
for Cancer Research.  
ISSN: 0197-016X.  
DT Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LA English  
ED Entered STN: 22 Aug 2001  
Last Updated on STN: 22 Feb 2002

L16 ANSWER 7 OF 8 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN  
AN 2003435088 EMBASE  
TI Mechanisms of **Osteoblastic** Metastases: Role of Endothelin-1.  
AU Mohammad K.S.; Guise T.A.  
CS Dr. T.A. Guise, University of Virginia, Department of Internal Medicine,  
Div. of Endocrinology and Metabolism, 450 Ray C. Hunt Drive,  
Charlottesville, VA 22903, United States. TAG4N@Virginia.edu

SO Clinical Orthopaedics and Related Research, (2003) -/415 SUPPL. (S67-S74).  
 Refs: 67  
 ISSN: 0009-921X CODEN: CORTBR

CY United States

DT Journal; Conference Article

FS 016 Cancer  
 029 Clinical Biochemistry  
 033 Orthopedic Surgery

LA English

SL English

AB Certain solid tumors metastasize to bone, causing an **osteoblastic** response. The mechanisms by which tumor cells stimulate this new bone formation are not understood completely. We identified three breast cancer lines that cause **osteoblastic** metastases in female nude mice and provide evidence that tumor-produced endothelin-1 (ET-1) mediates the **osteoblastic** response. Tumor-conditioned media and exogenous ET-1 stimulated **osteoblast** proliferation and new bone formation in cultures of calvarias from mice. These effects were blocked by endothelin A (ET(A)) but not by ET(B) receptor antagonists. Mice inoculated with the ZR-75-1 breast cancer line and treated with a selective ET(A) receptor antagonist (ABT-627) had significantly fewer **osteoblastic bone metastases** and less tumor burden compared with untreated mice. In contrast, there was no effect of ABT-627 on osteolytic **bone metastases** caused by ET-1-negative breast cancer, MDA-MB-231. ABT-627 had no effect on cell growth in vitro or at the orthotopic site (mammary fat pad) of ZR-75-1, or MDA-MB-231 cells. Collectively, the data suggest that tumor-produced ET-1 mediates **osteoblastic bone metastases** by stimulating **osteoblast** proliferation and new bone formation. Endothelin A receptor blockade may be useful for the prevention and treatment of **osteoblastic bone metastases** attributable to breast or prostate cancer.

L16 ANSWER 8 OF 8 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN

AN 2003379832 EMBASE

TI A causal role for endothelin-1 in the pathogenesis of **osteoblastic bone metastases**.

AU Yin J.J.; Mohammad K.S.; Kakonen S.M.; Harris S.; Wu-Wong J.R.; Wessale J.L.; Padley R.J.; Garrett I.R.; Chirgwin J.M.; Guise T.A.

CS T.A. Guise, Department of Internal Medicine, Division of Endocrinology, University of Virginia, P.O. Box 801419, Charlottesville, VA 22908, United States. tag4n@virginia.edu

SO Proceedings of the National Academy of Sciences of the United States of America, (16 Sep 2003) 100/19 (10954-10959).  
 Refs: 42  
 ISSN: 0027-8424 CODEN: PNASA6

CY United States

DT Journal; Article

FS 005 General Pathology and Pathological Anatomy  
 016 Cancer  
 037 Drug Literature Index

LA English

SL English

AB **Osteoblastic bone metastases** are common in prostate and breast cancer patients, but mechanisms by which tumor cells stimulate new bone formation are unclear. We identified three breast cancer cell lines that cause **osteoblastic** metastases in a mouse model and secrete endothelin-1. Tumor-produced endothelin-1 stimulates new bone formation in vitro and **osteoblastic** metastases in vivo via the endothelin A receptor. Treatment with an orally active endothelin A receptor antagonist dramatically decreased **bone metastases** and tumor burden in mice inoculated with ZR-75-1 cells. Tumor-produced endothelin-1 may have a major role in the establishment of

osteoblastic bone metastases, and endothelin A receptor blockade represents effective treatment.

=>

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FILE 'REGISTRY' ENTERED AT 17:14:48 ON 31 AUG 2004

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L2      1 S 195733-43-8/RN
L3      0 S 19570407204/RN
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L6      1 S 173937-92-3/RN
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L10     7 S L1 OR L2 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9
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L13     81268 S OSTEOBLAST?
L14     30 S L11 AND L12
L15     9 S L11 AND L13
L16     8 S L14 AND L15
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FILE 'USPATFULL, BIOTECHNO, BIOSIS, EMBASE' ENTERED AT 17:23:43 ON 31 AUG 2004

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FILE 'CAPLUS, USPATFULL, BIOTECHNO, BIOSIS, EMBASE, TOXCENTER' ENTERED AT 17:27:16 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:27:19 ON 31 AUG 2004

FILE 'CAPLUS, USPATFULL, BIOTECHNO, BIOSIS, EMBASE' ENTERED AT 17:28:38 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:28:40 ON 31 AUG 2004

FILE 'USPATFULL, BIOTECHNO, BIOSIS, EMBASE' ENTERED AT 17:28:49 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:28:51 ON 31 AUG 2004

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      604 ANTAGONIST#
L19   0 ENDOTHELIN ANTAGONIST#
      (ENDOTHELIN(W)ANTAGONIST#)
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FULL ESTIMATED COST                               23.60      207.06
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CA SUBSCRIBER PRICE	ENTRY	SESSION
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FILE 'TOXCENTER' ENTERED AT 17:37:30 ON 31 AUG 2004  
COPYRIGHT (C) 2004 ACS

FILE 'CANCERLIT' ENTERED AT 17:37:30 ON 31 AUG 2004

=> s endothelin antagonist#  
L21 2727 ENDOTHELIN ANTAGONIST#

=> d his

(FILE 'HOME' ENTERED AT 17:14:39 ON 31 AUG 2004)

FILE 'REGISTRY' ENTERED AT 17:14:48 ON 31 AUG 2004

L1 2 S ATRASANTAN  
L2 1 S 195733-43-8/RN  
L3 0 S 19570407204/RN  
L4 1 S 195704-72-4/RN  
L5 1 S 178738-96-0/RN  
L6 1 S 173937-92-3/RN  
L7 1 S 173937-91-2/RN  
L8 1 S 173864-34-1  
L9 1 S 173864-01-2/RN  
L10 7 S L1 OR L2 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9

FILE 'CAPLUS, USPATFULL, BIOTECHNO, IPA, BIOSIS, EMBASE, TOXCENTER,  
MEDLINE, CANCERLIT' ENTERED AT 17:20:21 ON 31 AUG 2004

L11 581 S L10  
L12 31827 S BONE# METASTA?  
L13 81268 S OSTEOBLAST?  
L14 30 S L11 AND L12  
L15 9 S L11 AND L13  
L16 8 S L14 AND L15

FILE 'REGISTRY' ENTERED AT 17:23:12 ON 31 AUG 2004  
L17 1 DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)

FILE 'USPATFULL, BIOTECHNO, BIOSIS, EMBASE' ENTERED AT 17:23:43 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:23:44 ON 31 AUG 2004  
L18 0 S L14 OR L15

FILE 'CAPLUS, USPATFULL, BIOTECHNO, BIOSIS, EMBASE, TOXCENTER' ENTERED AT 17:27:16 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:27:19 ON 31 AUG 2004

FILE 'CAPLUS, USPATFULL, BIOTECHNO, BIOSIS, EMBASE' ENTERED AT 17:28:38 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:28:40 ON 31 AUG 2004

FILE 'USPATFULL, BIOTECHNO, BIOSIS, EMBASE' ENTERED AT 17:28:49 ON 31 AUG 2004

FILE 'REGISTRY' ENTERED AT 17:28:51 ON 31 AUG 2004

L19 0 S ENDOTHELIN ANTAGONIST#  
L20 0 S ENDOTHELIN ANTAGONISTS

FILE 'CAPLUS, USPATFULL, BIOTECHNO, BIOSIS, EMBASE, TOXCENTER, CANCERLIT' ENTERED AT 17:37:30 ON 31 AUG 2004

L21 2727 S ENDOTHELIN ANTAGONIST#

=> s cancer or carcinoma or neoplasm  
4 FILES SEARCHED...

L22 3935754 CANCER OR CARCINOMA OR NEOPLASM

=> s prostate  
L23 271186 PROSTATE

=> s l22 and l23  
L24 200209 L22 AND L23

=> s l21 and l24  
L25 148 L21 AND L24

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DUPLICATE PREFERENCE IS 'CAPLUS, USPATFULL, BIOSIS, EMBASE, TOXCENTER, CANCERLIT'  
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L26 128 DUPLICATE REMOVE L25 (20 DUPLICATES REMOVED)

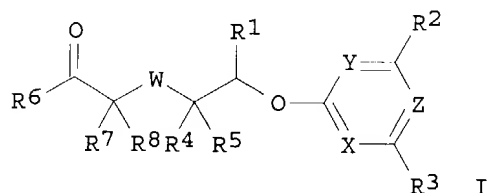
=> s l26 and py<=2000  
4 FILES SEARCHED...  
5 FILES SEARCHED...  
L27 32 L26 AND PY<=2000

=> d 1-32 bib abs

L27 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:115731 CAPLUS  
DN 132:166247  
TI Preparation of pyrimidinyloxypropanoates and related compounds as  
**endothelin antagonists.**  
IN Amberg, Wilhelm; Jansen, Rolf; Kettschau, Georg; Hergenroeder, Stefan;  
Raschack, Manfred; Unger, Liliane  
PA BASF A.-G., Germany  
SO Ger. Offen., 18 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	DE 19836044	A1	20000217	DE 1998-19836044	19980810 <--
	CA 2340167	AA	20000224	CA 1999-2340167	19990807 <--

WO 2000009489	A1	20000224	WO 1999-EP5728	19990807 <--
W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HR, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9953741	A1	20000306	AU 1999-53741	19990807 <--
BR 9912889	A	20010508	BR 1999-12889	19990807
EP 1104410	A1	20010606	EP 1999-939457	19990807
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200100427	T2	20010723	TR 2001-200100427	19990807
JP 2002522531	T2	20020723	JP 2000-564942	19990807
NO 2001000622	A	20010206	NO 2001-622	20010206
BG 105236	A	20011231	BG 2001-105236	20010209
HR 2001000164	A1	20020430	HR 2001-164	20010308
ZA 2001001975	A	20020311	ZA 2001-1975	20010309
PRAI DE 1998-19836044	A	19980810		
WO 1999-EP5728	W	19990807		
OS MARPAT 132:166247				
GI				

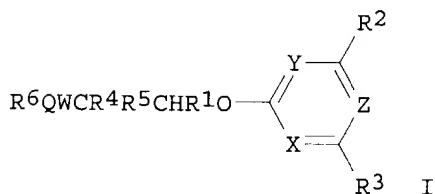


AB Title compds. [I; R1 = tetrazolyl, RCO; R = OR9, heteroaryl, etc.; R9 = H, cation, ammonium, alkyl, cycloalkyl, etc.; R2 = H, OH, amino, halo, alkyl, alkenyl, alkynyl, haloalkyl, alkoxy, alkylthio, etc.; X, Y = N, CH; Z = N, CR12; R12 = H, alkyl; R2R12, R3R12 = atoms to form (substituted) (O-, S-, or imino-interrupted) 5-6 membered alkylene, alkenylene; R3 = H, OH, imino, halo, alkyl, alkenyl, alkynyl, haloalkyl, alkoxy, haloalkoxy, alkylthio; R4, R5 = (substituted) Ph, naphthyl, etc.; R6 = (substituted) alkyl, Ph, naphthyl, heteroaryl; R7, R8 = H, alkyl; W = O, S], were prepared as **endothelin antagonists** (no data). Thus, 2-phenyl-1,3-dioxolan-2-ylmethanol, Me 3,3-diphenyl-2,3-epoxypropionate, and TsOH were stirred in CH2Cl2 at 0° for 15 min. to give Me 2-hydroxy-3,3-diphenyl-3-(2-phenyl-1,3-dioxolan-2-ylmethoxy)propionate. This was saponified with NaOH in dioxane/H2O and the acid in DMF was treated with NaH and 2-methanesulfonyl-4,6-dimethylpyrimidine to give 2-(4-methoxy-6-methylpyrimidin-2-yloxy)-3,3-diphenyl-3-(2-phenyl-1,3-dioxolan-2-ylmethoxy)propionic acid. The latter was stirred with TsOH in dioxane/H2O to give 2-(4-methoxy-6-methylpyrimidin-2-yloxy)-3-(2-oxo-2-phenylethoxy)-3,3-diphenylpropionic acid.

L27 ANSWER 2 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 1999:576917 CAPLUS  
DN 131:199706  
TI Preparation of pyrimidinyloxyphenylbutyrates as mixed endothelin ETA/ETB receptor antagonists.  
IN Amberg, Wilhelm; Jansen, Rolf; Klinge, Dagmar; Riechers, Hartmut; Hergenroder, Stefan; Raschack, Manfred; Unger, Liliane  
PA Basf A.-G., Germany  
SO PCT Int. Appl., 72 pp.  
CODEN: PIXXD2  
DT Patent  
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9944998	A1	19990910	WO 1999-EP1208	19990225 <--
	W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HR, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19809144	A1	19990909	DE 1998-19809144	19980304 <--
	CA 2322541	AA	19990910	CA 1999-2322541	19990225 <--
	AU 9926247	A1	19990920	AU 1999-26247	19990225 <--
	BR 9908401	A	20001031	BR 1999-8401	19990225 <--
	TR 200002545	T2	20001121	TR 2000-200002545	19990225 <--
	EP 1060167	A1	20001220	EP 1999-906251	19990225 <--
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	JP 2002505324	T2	20020219	JP 2000-534541	19990225
	ZA 9901738	A	20001011	ZA 1999-1738	19990304 <--
	TW 509676	B	20021111	TW 1999-88103317	19990304
	NO 2000004351	A	20000901	NO 2000-4351	20000901 <--
	BG 104754	A	20010531	BG 2000-104754	20000907
	HR 2000000650	A1	20010630	HR 2000-650	20001003
PRAI	DE 1998-19809144	A	19980304		
	WO 1999-EP1208	W	19990225		
OS	MARPAT 131:199706				
GI					



AB Title compds. [I; R1 = tetrazolyl, acyl; R2 = H, OH, amino, halo, alkyl, alkenyl, alkynyl, haloalkyl, alkoxy, haloalkoxy, alkylthio, etc.; X, Y = N, CH; Z = N, CR10; R10 = H, halo, OH, haloalkyl, alkyl; R2R10, R3R10 = atoms to form 5-6 membered rings; R3 = H, OH, amino, halo, alkyl, alkenyl, alkynyl, hydroxyalkyl, haloalkyl, alkoxy, haloalkoxy, alkylthio; R4 = (substituted) alkyl, alkenyl, alkynyl; R5 = (substituted) Ph, naphthyl which may be bonded to R4; R6 = (substituted) cycloalkyl, Ph, naphthyl; W = O, S; Q = spacer], were prepared. Thus, 2-hydroxy-3-[2-(4-chlorophenyl)ethoxy]-3-phenylbutyric acid (preparation given) was stirred with NaH in DMF followed by treatment with 2-chloro-4,6-dimethylpyrimidine followed by stirring for 4 days to give 2-(4,6-dimethylpyrimidin-2-yloxy)-3-[2-(4-chlorophenyl)ethoxy]-3-phenylbutyric acid. The latter bound to ETA and EtB receptors with Ki = 20 nM and 70 nM, resp.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 3 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:254080 CAPLUS

DN 130:252685

TI Preparation of **endothelin antagonists** and their use as medicaments

IN Puhl, Michael; Amberg, Wilhelm; Hillen, Heinz; Kling, Andreas; Hergenroeder, Stefan; Markert, Claus Otto

PA BASF A.-G., Germany  
SO Ger. Offen., 10 pp.  
CODEN: GWXXBX  
DT Patent  
LA German  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19745151	A1	19990415	DE 1997-19745151	19971014 <--
	WO 9919346	A1	19990422	WO 1998-EP5943	19980918 <--
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	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9896264	A1	19990503	AU 1998-96264	19980918 <--
	EP 1023318	A1	20000802	EP 1998-950050	19980918 <--
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	JP 2001519440	T2	20011023	JP 2000-515917	19980918
	ZA 9809313	A	20000413	ZA 1998-9313	19981013 <--
PRAI	DE 1997-19745151	A	19971014		
	WO 1998-EP5943	W	19980918		

OS MARPAT 130:252685

AB Title compds. PhCH<sub>2</sub>CH(SR<sub>2</sub>)CONHCH(R<sub>1</sub>)CONHCH(R)CO<sub>2</sub>H [(I); R = H, (substituted)(branched)alkyl, alkylaryl, alkyl-hetaryl, (substituted)aryl, (substituted)hetaryl; R<sub>1</sub> = (substituted) 2-thienyl-Me,  $\beta$ -naphthyl-Me, N-Boc-indol-3-ylmethyl; R<sub>2</sub> = H, (substituted)acyl], useful in the treatment of diseases associated with endothelin-binding, were prepared using solid-phase synthesis, and tested. Thus, L-phenylalanine, bound to polystyrol, was chain-extended using normal solid-phase protocols to give I [R = (S)-CH<sub>2</sub>PH; R<sub>1</sub> = (R)- $\beta$ -naphthyl-methyl; R<sub>2</sub> = (X)-SH(II)] (no details). In in vitro tests for endothelin-conversion enzyme inhibiting activity, II had IC<sub>50</sub> of 5 $\mu$ g/mg.

L27 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:424233 CAPLUS

DN 129:81755

TI Preparation of pyridazinyloxy- and pyrazinyloxydiphenylalkanoic acids as endothelin receptor antagonists.

IN Amberg, Wilhelm; Jansen, Rolf; Kling, Andreas; Klinge, Dagmar; Riechers, Hartmut; Hergenroder, Stefan; Raschack, Manfred; Unger, Liliane

PA Basf A.-G., Germany

SO PCT Int. Appl., 55 pp.

CODEN: PIXXD2

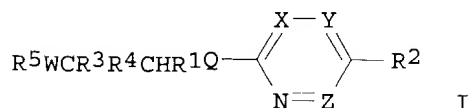
DT Patent

LA German

FAN.CNT 1

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PI	WO 9827070	A1	19980625	WO 1997-EP6778	19971204 <--
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	DE 19652763	A1	19980625	DE 1996-19652763	19961218 <--
	DE 19700884	A1	19980716	DE 1997-19700884	19970113 <--
	AU 9856594	A1	19980715	AU 1998-56594	19971204 <--
	AU 740351	B2	20011101		
	EP 946524	A1	19991006	EP 1997-952876	19971204 <--
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	CN 1247533	A	20000315	CN 1997-181869	19971204 <--
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NZ 336157	A	20001027	NZ 1997-336157	19971204 <--
JP 2001506243	T2	20010515	JP 1998-527247	19971204
ZA 9711305	A	19990617	ZA 1997-11305	19971217 <--
US 6448248	B1	20020910	US 1999-319876	19990614
NO 9902976	A	19990617	NO 1999-2976	19990617 <--
KR 2000057642	A	20000925	KR 1999-705445	19990617 <--
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DE 1997-19700884	A	19970113		
WO 1997-EP6778	W	19971204		
OS MARPAT 129:81755				
GI				



AB Title compds. [I; R1 = tetrazolyl, COR; R = OR6, 5-membered heteroaryl, etc.; R6 = H, alkali metal, alkaline earth metal, ammonium, cycloalkyl, alkyl, (substituted) PhCH2, etc.; R2 = (substituted) alkyl, alkenyl, alkynyl; R3, R4 = (substituted) Ph, naphthyl, cycloalkyl; R5 = H, (substituted) alkyl, alkenyl, alkynyl, Ph, naphthyl, 5-6 membered heterocyclyl; W = bond, O, S; Q = O, N; X = N, CH; Y = N, CR9; Z = N, CR10; R9, R10 = H, OH, amino, halo, alkoxy, haloalkoxy, alkylthio; with provisos], were prepared as endothelin receptor antagonists (no data). Thus, a suspension of NaH in DMF was treated dropwise with 2-hydroxy-3-methoxy-3,3-diphenylpropionic acid in DMF; 3-chloro-6-methylpyridazine in DMF was added and the mixture was stirred overnight to give 2-(6-methylpyridazin-3-yloxy)-3-methoxy-3,3-diphenylpropionic acid.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:684399 CAPLUS

DN 127:346381

TI Preparation of heterocyclyl ketoacids as **endothelin antagonists**

IN Cheng, Xue-Min; Doherty, Annette Marian; Hurley, Timothy Robert; Lovdahl, Michael James; Patt, William Chester; Repine, Joseph Thomas

PA Warner-Lambert Co., USA

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9737987	A1	19971016	WO 1997-US3959	19970312 <--
	W: AL, AU, BA, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9725292	A1	19971029	AU 1997-25292	19970312 <--
	ZA 9703024	A	19971104	ZA 1997-3024	19970409 <--
	US 6043241	A	20000328	US 1998-117575	19980731 <--
PRAI	US 1996-15269P	P	19960410		
	WO 1997-US3959	W	19970312		
OS	MARPAT 127:346381				
GI					

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. [I; R1 = H, alkyl, alkoxy, etc.; R2 = H, alkoxy; R3 = H, alkyl, alkoxy; R2R3 = OCH2O, OCH2CH2O; R4 = H, alkoxy; R5 = H, alkoxy, O-allyl; R6 = H, alkoxy, O-allyl; R7 = H, alkoxy, NH2, etc.; R5R6 = OCH2O; R6R7 = OCH2O; R8 = H, alkoxy; R9 = H, alkyl, alkoxy; R10 = alkoxy, amino; R9R10 = OCH2O; R11 = H, alkyl, alkoxy; R12 = H, alkoxy], novel nonpeptide antagonists of endothelin I which are useful in treating acute respiratory distress syndrome (ARDS), atherosclerosis, restenosis, Raynaud's phenomenon, chronic obstructive pulmonary diseases, mild or severe congestive heart failure, cerebral ischemia, cerebral infarction, embolic stroke, cerebral vasospasm, glaucoma, subarachnoid hemorrhage, hemorrhagic stroke, diabetes, gastric ulceration and mucosal damage, ischemic bowel disease, Crohn's disease, essential or malignant hypertension, pulmonary hypertension, pulmonary hypertension after bypass, male penile erectile dysfunction, **cancer**, especially malignant hemangioendothelioma or **prostate cancer**, myocardial infarction or ischemia, acute or chronic renal failure, renal ischemia, radiocontrast-induced nephrotoxicity, endotoxic, septic, hemorrhagic shock, angina, preeclampsia, asthma, arrhythmias, benign prostatic hyperplasia, and elevated levels of endothelin, were prepared by reacting an  $\alpha$ -hydroxy butenolide II with one or more equivalent of a suitable base, and exposing the above mentioned solution to an UV light. Thus, compound (E)-I [R1 = H; R2R3 = OCH2O; R4 = R8 = H; R5-R7 = MeO; R9, R11, R12 = H; R10 = MeO] showed IC50 of 65 nM against HERBA-A (Ltk- cells expressing human ETAR).

L27 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1997:684397 CAPLUS

DN 127:346287

TI Nonpeptide **endothelin antagonists** with increased water solubility

IN Cheng, Xue-Min; Doherty, Annette Marian; Patt, William Chester; Repine, Joseph Thomas

PA Warner-Lambert Co., USA

SO PCT Int. Appl., 106 pp.

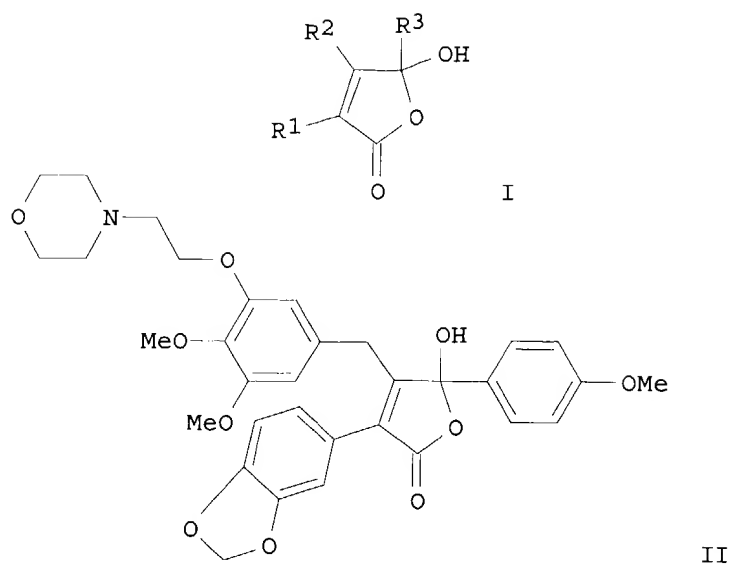
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9737985	A1	19971016	WO 1997-US3929	19970312 <--
	W: AL, AU, BA, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9720778	A1	19971029	AU 1997-20778	19970312 <--
	ZA 9703026	A	19971104	ZA 1997-3026	19970409 <--
	US 6297274	B1	20011002	US 1998-117667	19980804
PRAI	US 1996-15242P	P	19960410		
	WO 1997-US3929	W	19970312		
OS	MARPAT 127:346287				
GI					



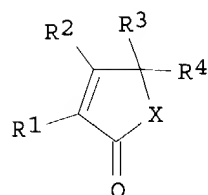
AB Novel nonpeptide antagonists of endothelin are described, specifically the butenolides I [R<sup>1</sup> = (un)substituted cycloalkyl, Ph, naphthyl, or heteroaryl; R<sup>2</sup> = (un)substituted alkyl, cycloalkyl, aryl, or heteroaryl; R<sup>3</sup> = (un)substituted alkyl, cycloalkyl, aryl, or heteroaryl; mol. bears at least 1 water solubility-enhancing substituent, and up to 4 total aqueous solubility groups; provided that when R<sup>2</sup> = substituted alkyl, the substituent is not O located alpha to the furanone ring]. Also disclosed are methods for the preparation of I, and their pharmaceutical compns., which are useful in treating atherosclerosis, restenosis, Raynaud's phenomenon, mild or severe congestive heart failure, cerebral ischemia, cerebral infarction, embolic stroke, cerebral vasospasm, glaucoma, subarachnoid hemorrhage, hemorrhagic stroke, diabetes, gastric ulceration and mucosal damage, ischemic bowel disease, Crohn's disease, male penile erectile dysfunction, essential or malignant hypertension, pulmonary hypertension, pulmonary hypertension after bypass, **cancer**, especially malignant hemangioendothelioma or **prostate cancer**, myocardial infarction or ischemia, acute or chronic renal failure, renal ischemia, radiocontrast-induced nephrotoxicity, endotoxic, septic, or hemorrhagic shock, angina, preeclampsia, asthma, arrhythmias, benign prostatic hyperplasia, and elevated levels of endothelin. Example preps. of 38 compds. and/or their salts, and 22 intermediates, are described. For instance, cyclocondensation of 2-benzo[1,3]dioxol-5-yl-4-(4-methoxyphenyl)-4-oxobutyric acid Me ester with 3-[2-(N-morpholinyl)ethoxy]-4,5-dimethoxybenzaldehyde in the presence of NaOMe, followed by treatment with AcOH, gave title compound II. In assays against human cloned receptors in vitro, II had IC<sub>50</sub> values of 0.3 nM at ETA receptors and 2300 nM at ETB receptors. Aqueous solubility of I was excellent, with three representative compds. having solubility values of at least 25-80 mg/mL.

L27 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2004 ACS on STN  
 AN 1997:276449 CAPLUS  
 DN 126:251066  
 TI Preparation of furanones as **endothelin antagonists**  
 IN Cheng, Xue-Min; Doherty, Annette Marian; Patt, William Chester; Repine, Joseph Thomas  
 PA Warner-Lambert Company, USA  
 SO PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English

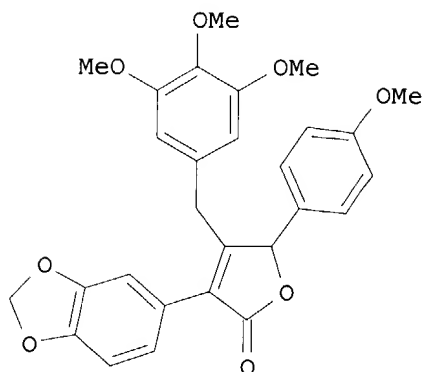


FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9708169	A1	19970306	WO 1996-US12431	19960729 <--
	W: AU, BG, CA, CN, CZ, EE, GE, HU, IL, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, UZ, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9666039	A1	19970319	AU 1996-66039	19960729 <--
	US 5998468	A	19991207	US 1997-983554	19971215 <--
PRAI	US 1995-2724P	P	19950824		
	WO 1996-US12431	W	19960729		
OS	MARPAT 126:251066				
GI					



I



II

AB Novel nonpeptide antagonists of endothelin [I; R1 = (un)substituted C3-12 cycloalkyl, Ph, naphthyl, heteroaryl; R2 = (un)substituted C1-12 alkyl, C3-12 cycloalkyl; R3 = (un)substituted C1-12 alkyl, C3-12 cycloalkyl, etc.; R4 = OH, O(C1-7 alkyl), SH, etc.; X = O, S], useful in treating elevated levels of endothelin, acute and chronic renal failure, hypertension, myocardial infarction, myocardial ischemia, cerebral vasospasm, cerebral ischemia, cerebral infarction, cirrhosis, septic shock, congestive heart failure, endotoxic shock, subarachnoid hemorrhage, arrhythmias, asthma, preeclampsia, atherosclerotic disorders including Raynaud's disease and restenosis, angina, **cancer**, pulmonary hypertension, ischemic disease, gastric mucosal damage, hemorrhagic shock, ischemic bowel disease, stroke, benign prostatic hyperplasia (BPH), and diabetes, were prepared. Thus, treatment of 3-(benzo[1,3]dioxol-5-yl)-5-hydroxy-5-(4-methoxyphenyl)-4-(3,4,5-trimethoxybenzyl)-5H-furan-2-one with CF3COOH followed by addition Et3SiH afforded II which showed IC50 of 30 nM against endothelin receptor ETA (ERBA-A) and of > 2500 nM against ETB (ERBA-B).

L27 ANSWER 8 OF 32 USPATFULL on STN

AN 2004:27131 USPATFULL

TI  $\alpha$ -hydroxylic acid derivatives, their production and use

IN Klinge, Dagmar, Heidelberg, GERMANY, FEDERAL REPUBLIC OF  
Amberg, Wilhelm, Friedrichsdorf, GERMANY, FEDERAL REPUBLIC OF  
Baumann, Ernst, Dudenhofen, GERMANY, FEDERAL REPUBLIC OF  
Kling, Andreas, Mannheim, GERMANY, FEDERAL REPUBLIC OF  
Riechers, Hartmut, Neustadt, GERMANY, FEDERAL REPUBLIC OF  
Unger, Liliane, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF  
Raschack, Manfred, Weisenheim, GERMANY, FEDERAL REPUBLIC OF  
Hergenroder, Stefan, Mainz, GERMANY, FEDERAL REPUBLIC OF  
Schult, Sabine, Speyer, GERMANY, FEDERAL REPUBLIC OF

PA Abbott GmbH & Co., KG, Wiesbaden, GERMANY, FEDERAL REPUBLIC OF (non-U.S.)

corporation)  
PI US 6686369 B1 20040203  
WO 9738981 19971023 <--  
AI US 1998-155944 19981008 (9)  
WO 1997-EP1688 19970404  
PRAI DE 1996-19614533 19960412  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Balasubramanian,  
Venkataraman  
LREP Wood, Phillips, Katz, Clark & Mortimer  
CLMN Number of Claims: 8  
ECL Exemplary Claim: 1  
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)  
LN.CNT 1486  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The present invention relates to carboxylic acid derivatives of the  
formula ##STR1##

where the radicals have the meanings stated in the description, to the  
preparation of these compounds and to their use as drugs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 9 OF 32 USPATFULL on STN  
AN 2003:228330 USPATFULL  
TI Carboxylic acid derivatives, their production and use  
IN Riechers, Hartmut, Neustadt, GERMANY, FEDERAL REPUBLIC OF  
Klinge, Dagmar, Heidelberg, GERMANY, FEDERAL REPUBLIC OF  
Amberg, Wilhelm, Friedrichsdorf, GERMANY, FEDERAL REPUBLIC OF  
Kling, Andreas, Mannheim, GERMANY, FEDERAL REPUBLIC OF  
Hillen, Heinz, Hassloch, GERMANY, FEDERAL REPUBLIC OF  
Unger, Liliane, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF  
Elger, Bernd, Neustadt, GERMANY, FEDERAL REPUBLIC OF  
PA BASF Aktiengesellschaft, Ludwigshafen, GERMANY, FEDERAL REPUBLIC OF  
(non-U.S. corporation)  
PI US 6610691 B1 20030826  
WO 9738980 19971023 <--  
AI US 1998-155946 19981008 (9)  
WO 1997-EP1684 19970404  
PRAI DE 1996-19614534 19960412  
DT Utility  
FS GRANTED  
EXNAM Primary Examiner: Raymond, Richard L.; Assistant Examiner:  
Balasubramanian, Venkataraman  
LREP Wood, Phillips, Katz, Clark & Mortimer  
CLMN Number of Claims: 15  
ECL Exemplary Claim: 1  
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)  
LN.CNT 1298  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The invention relates to carboxylic acid derivatives of the formula  
##STR1##

where the radicals have the meanings defined in the description, to the  
preparation of these compounds and to their use as drugs.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 10 OF 32 USPATFULL on STN  
AN 2001:168157 USPATFULL  
TI Nonpeptide **endothelin antagonists** with increased  
water solubility  
IN Cheng, Xue-Min, Ann Arbor, MI, United States

Doherty, Annette Marian, Ann Arbor, MI, United States  
 Patt, William Chester, Chelsea, MI, United States  
 Repine, Joseph Thomas, Ann Arbor, MI, United States  
 PA Warner-Lambert Company, Morris Plains, NJ, United States (U.S.  
 corporation)  
 PI US 6297274 B1 20011002  
 WO 9737985 19971016  
 AI US 1998-117667 19980804 (9)  
 WO 1997-US3929 19970312  
 19980804 PCT 371 date  
 19980804 PCT 102(e) date  
 DT Utility  
 FS GRANTED  
 EXNAM Primary Examiner: Mckane, Joseph K.; Assistant Examiner: Murray, Joseph  
 LREP Anderson, Elizabeth M., Kurlandsky, David R.  
 CLMN Number of Claims: 29  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 2157  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB Novel nonpeptide endothelin I antagonists of Formula ##STR1##

are described wherein R.sub.1 is unsubstituted or substituted cycloalkyl, phenyl, naphthyl or heteroaryl, R.sub.2 is unsubstituted or substituted alkyl, aryl or heteroaryl, R.sub.3 is unsubstituted or substituted alkyl, cycloalkyl, aryl or heteroaryl, and R.sub.1 and/or R.sub.2 and/or R.sub.3 are independently substituted by a total of from 1 to 4 substituents which enhance aqueous solubility with the proviso that when R.sub.2 is alkyl and is substituted, the substituent is not oxygen at the  $\alpha$ -position of the furanone ring. Further described are methods for the preparation and pharmaceutical compositions of compounds of Formula I, which are useful in treating atherosclerosis, restenosis, Raynaud's phenomenon, mild or severe congestive heart failure, cerebral ischemia, cerebral infarction, embolic stroke, cerebral vasospasm, glaucoma, subarachnoid hemorrhage, hemorrhagic stroke, diabetes, gastric ulceration and mucosal damage, ischemic bowel disease, Chronn's disease, male penile erectile dysfunction, essential or malignant hypertension, pulmonary hypertension, pulmonary hypertension after bypass, **cancer**, especially malignant hemangioendothelioma or **prostate cancer**, myocardial infarction or ischemia, acute or chronic renal failure, renal ischemia, radiocontrast-induced nephrotoxicity, endotoxic, septic hemorrhagic shock, angina, preeclampsia, asthma, arrhythmias, benign prostatic hyperplasia, and elevated levels of endothelin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 11 OF 32 USPATFULL on STN  
 AN 2000:171151 USPATFULL  
 TI **Endothelin antagonists**  
 IN Winn, Martin, Deerfield, IL, United States  
 Boyd, Steven A., Mundelein, IL, United States  
 Hutchins, Charles W., Gurnee, IL, United States  
 Jae, Hwan-Soo, Glencoe, IL, United States  
 Tasker, Andrew S., Gurnee, IL, United States  
 von Geldern, Thomas W., Richmond, IL, United States  
 Kester, Jeffrey A., Deerfield, IL, United States  
 Sorensen, Bryan K., Waukegan, IL, United States  
 Szczepankiewicz, Bruce G., Gages Lake, IL, United States  
 Henry, Kenneth J., Waukegan, IL, United States  
 Liu, Gang, Gurnee, IL, United States  
 Wittenberger, Steven J., Mundelein, IL, United States  
 King, Steven A., Gurnee, IL, United States  
 PA Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)

PI US 6162927 20001219 <--  
AI US 1997-905913 19970804 (8)  
RLI Continuation-in-part of Ser. No. US 1997-794506, filed on 4 Feb 1997  
which is a continuation-in-part of Ser. No. US 1996-600625, filed on 13  
Feb 1996, now abandoned which is a continuation-in-part of Ser. No. US  
1995-497998, filed on 2 Aug 1995, now abandoned which is a  
continuation-in-part of Ser. No. US 1995-442575, filed on 30 May 1995,  
now patented, Pat. No. US 5767144 which is a continuation-in-part of  
Ser. No. US 1994-334717, filed on 4 Nov 1994, now abandoned which is a  
continuation-in-part of Ser. No. US 1994-293349, filed on 19 Aug 1994,  
now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Higel, Floyd D.  
LREP Strode, Janelle D.  
CLMN Number of Claims: 10  
ECL Exemplary Claim: 2,3  
DRWN No Drawings  
LN.CNT 13238

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound of the formula (I): ##STR1## or a pharmaceutically acceptable  
salt thereof is disclosed, as well as processes for and intermediates in  
the preparation thereof, and a method of antagonizing endothelin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 12 OF 32 USPATFULL on STN

AN 2000:142385 USPATFULL

TI Annelated dihydropyridines and the use thereof for preparing  
pharmaceutical preparations

IN Roos, Otto, Schwabenheim, Germany, Federal Republic of  
Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Arndts, Dietrich, Appenheim, Germany, Federal Republic of

PA Boehringer Ingelheim GmbH, Ingelheim, Germany, Federal Republic of  
(non-U.S. corporation)

PI US 6136819 20001024 <--

AI US 1999-329443 19990610 (9)

RLI Division of Ser. No. US 1997-857643, filed on 16 May 1997, now patented,  
Pat. No. US 5968948 which is a division of Ser. No. US 1994-360867,  
filed on 21 Dec 1994, now patented, Pat. No. US 5661157

PRAI DE 1993-4343683 19931221

DT Utility

FS Granted

EXNAM Primary Examiner: Davis, Zinna Northington

LREP Raymond, Robert P., Stempel, Alan R., Devlin, Mary-Ellen M.

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1199

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compound of general formula I ##STR1## wherein A denotes a benzo, indolo  
or thienyl group;

B denotes the group --O--, --S-- or --CHR<sup>5</sup>--, wherein R<sup>5</sup> is  
hydrogen, (C<sub>1-6</sub>)alkyl, phenyl or benzyl;

R<sup>3</sup> denotes 2- or 3-thienyl, (C<sub>4-7</sub>)cycloalkyl, (C<sub>4-6</sub>)  
cycloalkyl(C<sub>1-5</sub>)alkyl or ##STR2## wherein R is  
(C<sub>1-4</sub>)alkyl, hydroxy, --N<sub>3</sub>, halogen (F, Cl, Br, I),  
CF<sub>3</sub> or (C<sub>1-4</sub>)alkoxy,

u is 0, 1, 2 or 3, and

m, R<sup>2</sup>, R<sup>4</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> are as defined in the

specification, as well as pharmaceutical preparations containing these compounds and the pharmaceutical use thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 13 OF 32 USPATFULL on STN  
AN 2000:138349 USPATFULL  
TI **Endothelin antagonists** with ether-linked groups  
IN Cheng, Xue-Min, Ann Arbor, MI, United States  
Doherty, Annette Marian, Ann Arbor, MI, United States  
Patt, William Chester, Chelsea, MI, United States  
Repine, Joseph Thomas, Ann Arbor, MI, United States  
PA Warner-Lambert Company, Morris Plains, NJ, United States (U.S.  
corporation)  
PI US 6133263 20001017 <--  
WO 9737986 19971016  
AI US 1998-117649 19980803 (9)  
WO 1997-US3930 19970312  
19980803 PCT 371 date  
19980803 PCT 102(e) date  
PRAI US 1996-15238P 19960410 (60)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Ramsuer, Robert W.  
LREP Anderson, Elizabeth M.  
CLMN Number of Claims: 30  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1439

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel nonpeptide **endothelin antagonists** with ether-linked groups are described, as well as methods for the preparation and pharmaceutical compositions of the same, which are useful in treating atherosclerosis, restenosis, Raynaud's phenomenon, mild or severe congestive heart failure, cerebral ischemia, cerebral infarction, embolic stroke, cerebral vasospasm, subarachnoid hemorrhage, hemorrhagic stroke, diabetes, gastric ulceration and mucosal damage, ischemic bowel disease, Crohn's disease, essential or malignant hypertension, pulmonary hypertension, pulmonary hypertension after bypass, acute respiratory distress syndrome, chronic obstructive pulmonary diseases, male penile erectile dysfunction, **cancer**, especially malignant hemangioendothelioma or **prostate cancer**, myocardial infarction or ischemia, acute or chronic renal failure, renal ischemia, radiocontrast-induced nephrotoxicity, endotoxic, septic, hemorrhagic shock, angina, preeclampsia, asthma, arrhythmias, benign prostatic hyperplasia, and elevated levels of endothelin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 14 OF 32 USPATFULL on STN  
AN 2000:128375 USPATFULL  
TI Substituted phenyl compounds with a substituent having a thienyl ring  
IN Smith, Christopher, Dagenham, United Kingdom  
Porter, Barry, Dagenham, United Kingdom  
Walsh, Roger, Dagenham, United Kingdom  
Majid, Tahir, Dagenham, United Kingdom  
McCarthy, Clive, Dagenham, United Kingdom  
Harris, Neil, Dagenham, United Kingdom  
Astles, Peter, Dagenham, United Kingdom  
McLay, Iain, Dagenham, United Kingdom  
Morley, Andrew, Dagenham, United Kingdom  
Bridge, Andrew, Dagenham, United Kingdom  
Van Sickle, Andrew, Dagenham, United Kingdom

Halley, Frank, Dagenham, United Kingdom  
 Roach, Alan, Dagenham, United Kingdom  
 Foster, Martyn, Dagenham, United Kingdom  
 PA Rhone-Poulenc Rorer Limited, West Malling, United Kingdom (non-U.S. corporation)  
 PI US 6124343 20000926 <--  
 AI US 1997-898547 19970722 (8)  
 RLI Continuation-in-part of Ser. No. WO 1996-GB120, filed on 22 Jan 1996  
 PRAI GB 1919-9501635 19190127  
 GB 1995-4061 19950301  
 GB 1995-9604 19950511  
 GB 1996-15752 19960726  
 US 1996-24902P 19960830 (60)  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Stockton, Laura L.  
 LREP Synnestvedt & Lechner LLP  
 CLMN Number of Claims: 19  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 3327

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention is directed to compounds of formula I ##STR1## wherein R.sup.1 is CN, CH.sub.2 CN, CH.dbd.CHCN, CHO, or CH.dbd.CHCO.sub.2 H;

R.sup.2 is aryl lower alkoxy, heteroaryl lower alkoxy, aryl lower alkylthio or heteroaryl lower alkylthio wherein each of the aryl and heteroaryl moieties is optionally substituted;

R.sup.3 is halogen;

R.sup.4 is optionally substituted aryl or optionally substituted heteroaryl;

R.sup.5 is carboxy or an acid isostere;

X is oxygen or sulphur; and

n is zero or 1; or an N-oxide thereof, prodrug thereof solvate thereof, or pharmaceutically acceptable salt thereof, which compounds have **endothelin antagonist** activity. The invention is also directed to methods for preparing the compounds of formula I and their pharmaceutical use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 15 OF 32 USPATFULL on STN

AN 2000:105915 USPATFULL

TI Carboxylic acid derivatives, their production and use  
 IN Amberg, Wilhelm, Friedrichsdorf, Germany, Federal Republic of  
 Kling, Andreas, Mannheim, Germany, Federal Republic of  
 Klinge, Dagmar, Heidelberg, Germany, Federal Republic of  
 Riechers, Hartmut, Neustadt, Germany, Federal Republic of  
 Baumann, Ernst, Dudenhofen, Germany, Federal Republic of  
 Unger, Liliane, Ludwigshafen, Germany, Federal Republic of  
 Raschack, Manfred, Weisenheim, Germany, Federal Republic of  
 Hergenroder, Stefan, Mainz, Germany, Federal Republic of  
 Schult, Sabine, Speyer, Germany, Federal Republic of  
 PA BASF Aktiengesellschaft, Ludwigshafen, Germany, Federal Republic of (non-U.S. corporation)

PI US 6103732 20000815 <--  
 WO 9738982 19971023 <--  
 AI US 1998-155948 19981008 (9)  
 WO 1997-EP1687 19970404

19981008 PCT 371 date  
19981008 PCT 102(e) date

PRAI DE 1996-19614542 19960412  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Balasubramanian, V.  
LREP Keil & Weinkauff  
CLMN Number of Claims: 10  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1074

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Carboxylic acid derivatives of the formula I ##STR1## where the radicals have the meanings stated in the description, and the preparation of these agreements [sic] and their use as drugs are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 16 OF 32 USPATFULL on STN  
AN 2000:88197 USPATFULL  
TI Quinazolinone inhibitors of cGMP phosphodiesterase  
IN Macor, John E., Flemington, NJ, United States  
Rotella, David P., Newtown, PA, United States  
Weller, III, Harold N., Pennington, NJ, United States  
Cushman, David W., Lawrenceville, NJ, United States  
Yevich, Joseph P., Southington, CT, United States  
PA Bristol-Myers Squibb Company, Princeton, NJ, United States (U.S. corporation)  
PI US 6087368 20000711 <--  
AI US 1999-322678 19990528 (9)  
PRAI US 1998-88538P 19980608 (60)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Balasubramanian, V.  
LREP Davis, Stephen B., Babajko, Suzanne  
CLMN Number of Claims: 17  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 3144

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel quinazolinone compounds, methods of using such compounds in the treatment of cGMP-associated conditions such as erectile dysfunction, and pharmaceutical compositions containing such compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 17 OF 32 USPATFULL on STN  
AN 2000:61727 USPATFULL  
TI Methods and compositions for treatment of cell proliferative disorders  
IN Vournakis, John N., Charleston, SC, United States  
Finkielsztejn, Sergio, Chestnut Hill, MA, United States  
Pariser, Ernest R., Belmont, MA, United States  
PA Marine Polymer Technologies, Inc., Danvers, MA, United States (U.S. corporation)  
PI US 6063911 20000516 <--  
AI US 1998-218288 19981222 (9)  
RLI Continuation-in-part of Ser. No. US 1995-471290, filed on 6 Jun 1995, now patented, Pat. No. US 5858350 which is a continuation-in-part of Ser. No. US 1994-347911, filed on 1 Dec 1994, now patented, Pat. No. US 5623064 which is a continuation-in-part of Ser. No. US 1993-160569, filed on 1 Dec 1993, now patented, Pat. No. US 5622834  
DT Utility





R.sup.1 is CN, CH.sub.2 CN, CH.dbd.CHCN, CHO, or CH.dbd.CHCO.sub.2 H;

R.sup.2 is aryl lower alkoxy, heteroaryl lower alkoxy, aryl lower alkylthio or heteroaryl lower alkylthio wherein each of the aryl and heteroaryl moieties is optionally substituted;

R.sup.3 is halogen;

R.sup.4 is optionally substituted aryl or optionally substituted heteroaryl;

R.sup.5 is carboxy or an acid isostere;

X is oxygen or sulphur; and

n is zero or 1; or an N-oxide thereof, prodrug thereof solvate thereof, or pharmaceutically acceptable salt thereof, which compounds have **endothelin antagonist** activity. The invention is also directed to methods for preparing the compounds of formula I and their pharmaceutical use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 19 OF 32 USPATFULL on STN  
AN 2000:37797 USPATFULL  
TI Ketoacid **endothelin antagonists**  
IN Cheng, Xue-Min, Ann Arbor, MI, United States  
Doherty, Annette Marian, Paris, France  
Hurley, Timothy Robert, Ann Arbor, MI, United States  
Lovdahl, Michael James, Ann Arbor, MI, United States  
Patt, William Chester, Chelsea, MI, United States  
Repine, Joseph Thomas, Ann Arbor, MI, United States  
PA Warner-Lambert Company, Morris Plains, NJ, United States (U.S. corporation)  
PI US 6043241 20000328 <--  
WO 9737987 19971016  
AI US 1998-117575 19980731 (9)  
WO 1997-US3959 19970312  
19980731 PCT 371 date  
19980731 PCT 102(e) date  
PRAI US 1996-15269P 19960410 (60)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Powers, Fiona T.  
LREP Anderson, Elizabeth M.  
CLMN Number of Claims: 32  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1330

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds of the Formula I ##STR1## are nonpeptide antagonists of endothelin which are useful in treating a variety of diseases such as elevated levels of endothelin, acute respiratory distress syndrome (ARDS), atherosclerosis, restenosis, Raynaud's phenomenon etc. The compounds are prepared by reacting an alpha-hydroxy butenolide with one or more equivalents of a suitable base, and exposing the solution to UV light.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 20 OF 32 USPATFULL on STN  
AN 2000:24649 USPATFULL  
TI Carboxylic acid derivatives, their preparation and use in treating **cancer**

IN Romerdahl, Cynthia A., Wayland, MA, United States  
PA BASF Aktiengesellschaft, Germany, Federal Republic of (non-U.S.  
corporation)  
PI US 6030975 20000229 <--  
AI US 1997-818622 19970314 (8)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Goldberg, Jerome D.  
LREP Hamilton, Brook, Smith & Reynolds, P.C.  
CLMN Number of Claims: 16  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 2911

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides a method for treating **cancer** in an individual, wherein the **cancer** is a tumor in which endothelin is upregulated (e.g. tumors of the **prostate**, lung, liver, breast, brain, stomach, colon, endometrium, testicle, thyroid, pituitary, bladder, kidney, pancreas and meninges) by administering to the individual an effective amount of a compound of Formula I or Formula Ia, as describe herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 21 OF 32 USPATFULL on STN  
AN 1999:128564 USPATFULL  
TI Annelated dihydropyridines and the use thereof for preparing pharmaceutical preparations  
IN Roos, Otto, Schwabenheim, Germany, Federal Republic of  
Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
PA Boehringer Ingelheim GmbH, Ingelheim am Rhein, Germany, Federal Republic of (non-U.S. corporation)  
PI US 5968948 19991019 <--  
AI US 1997-857643 19970516 (8)  
RLI Division of Ser. No. US 1994-360867, filed on 21 Dec 1994, now patented, Pat. No. US 5661157  
PRAI DE 1993-4343683 19931221  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Davis, Zinna Northington  
LREP Raymond, Robert P., Stempel, Alan R., Devlin, Mary-Ellen  
CLMN Number of Claims: 7  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1226

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compound of general formula I ##STR1## wherein A denotes a benzo, indolo or thienyl group;

B denotes the group --O--, --S-- or --CHR.<sup>sup.5</sup> --, wherein R.<sup>sup.5</sup> is hydrogen, (C.<sub>sub.1-6</sub>)alkyl, phenyl or benzyl;

R.<sup>sup.3</sup> denotes 2- or 3-thienyl, (C.<sub>sub.4-7</sub>)cycloalkyl, (C.<sub>sub.4-6</sub>)cycloalkyl(C.<sub>sub.1-5</sub>)alkyl or ##STR2## wherein R is (C.<sub>sub.1-4</sub>)alkyl, hydroxy, --N.<sub>sub.3</sub>, halogen (F, Cl, Br, I), CF.<sub>sub.3</sub> or (C.<sub>sub.1-4</sub>)alkoxy,

u is 0, 1, 2 or 3, and

m, R.<sup>sup.2</sup>, R.<sup>sup.4</sup>, R.<sup>sup.7</sup>, R.<sup>sup.8</sup> and R.<sup>sup.9</sup> are as defined in the specification, as well as pharmaceutical preparations containing these compounds and the pharmaceutical use thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 22 OF 32 USPATFULL on STN  
AN 1999:81842 USPATFULL  
TI Annelated dihydropyridines and the use thereof for preparing  
pharmaceutical preparations  
IN Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of  
Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
PA Boehringer Ingelheim KG, Ingelheim am Rhein, Germany, Federal Republic  
of (non-U.S. corporation)  
PI US 5925650 19990720 <--  
AI US 1997-993855 19971218 (8)  
RLI Continuation of Ser. No. US 1995-465637, filed on 5 Jun 1995, now  
patented, Pat. No. US 5837712 which is a continuation of Ser. No. US  
1994-360524, filed on 21 Dec 1994, now patented, Pat. No. US 5607943  
PRAI DE 1993-4343684 19931221  
DE 1993-4343641 19931221  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Raymond, Richard L.; Assistant Examiner: Kessinger,  
Ann M.  
LREP Raymond, Robert P., Stempel, Alan R., Bottino, Anthony P.  
CLMN Number of Claims: 2  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 986

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound of formula I ##STR1## wherein A denotes a benzo, indolo or  
thieno group;

R.sup.1 denotes thienyl or the group ##STR2## wherein R.sup.7, R.sup.8  
and R.sup.9 independently of one another may represent methyl, ethyl,  
propyl, phenyl or benzyl, whilst not more than 2 of the substituents can  
simultaneously represent phenyl or benzyl;

R.sup.2, m, R.sup.3 and R.sup.4 are defined as in the specification, as  
well as pharmaceutical preparations containing this compound and the new  
pharmaceutical uses thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 23 OF 32 USPATFULL on STN  
AN 1999:7399 USPATFULL  
TI Dihydro-isoquinoline compounds and their use as pharmaceuticals  
IN Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of  
PA Boehringer Ingelheim KG, Ingelheim, Germany, Federal Republic of  
(non-U.S. corporation)  
PI US 5861412 19990119 <--  
AI US 1997-872584 19970610 (8)  
RLI Continuation of Ser. No. US 1995-478298, filed on 6 Jun 1995, now  
abandoned which is a division of Ser. No. US 1994-249822, filed on 26  
May 1994, now abandoned which is a continuation of Ser. No. US  
1993-81599, filed on 22 Jun 1993, now abandoned  
PRAI DE 1992-4220353 19920622  
DE 1992-4220319 19920622  
DE 1992-4220355 19920622  
DE 1992-4220368 19920622  
DE 1992-4220345 19920622  
DE 1992-4220312 19920622  
DE 1992-4220373 19920622  
DE 1992-4220369 19920622

DT Utility  
FS Granted  
EXNAM Primary Examiner: Kight, John; Assistant Examiner: Mach, D. Margaret M.  
LREP Raymond, R. P., Devlin, M-E. M., Stempel, A. R.  
CLMN Number of Claims: 6  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1716

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compound of general formula I ##STR1## wherein A is a benzo or thieno group;

R.sub.1 is (C.sub.4-6)cycloalkyl, (C.sub.4-6)cycloalkyl-(C.sub.1-5)alkyl or ##STR2## R.sup.2, m, R.sup.3, R.sup.4, R and u are defined as in the specification, and pharmaceutical preparations containing this compound and the new pharmaceutical uses thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 24 OF 32 USPATFULL on STN  
AN 1998:144111 USPATFULL  
TI Annelated dihydropyridines and the use thereof for preparing pharmaceutical preparations  
IN Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of  
Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
PA Boehringer Ingelheim KG, Ingelheim am Rhein, Germany, Federal Republic of (non-U.S. corporation)  
PI US 5837712 19981117 <--  
AI US 1995-465637 19950605 (8)  
RLI Continuation of Ser. No. US 1994-360524, filed on 21 Dec 1994, now patented, Pat. No. US 5607943  
PRAI DE 1993-4343684 19931221  
DE 1993-4343641 19931221

DT Utility  
FS Granted  
EXNAM Primary Examiner: Ford, John M.; Assistant Examiner: Wong, King Lit  
LREP Raymond, Robert P., Stempel, Alan R., Devlin, Mary-Ellen  
CLMN Number of Claims: 7  
ECL Exemplary Claim: 4  
DRWN No Drawings  
LN.CNT 1035

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound of formula I ##STR1## wherein A denotes a benzo, indolo or thieno group;

R.sup.1 denotes thienyl or the group ##STR2## wherein R.sup.7, R.sup.8 and R.sup.9 independently of one another may represent methyl, ethyl, propyl, phenyl or benzyl, while not more than 2 of the substituents can simultaneously represent phenyl or benzyl;

R.sup.2, m, R.sup.3 and R.sup.4 are defined as in the specification, as well as pharmaceutical preparations containing this compound and the new pharmaceutical uses thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 25 OF 32 USPATFULL on STN  
AN 97:107079 USPATFULL  
TI Pyridazino[4',5':3,4]pyrrolo-[2,1-a]-isoquinolines and the use thereof for preparing pharmaceutical preparations  
IN Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of  
Arndts, Dietrich, Appenheim, Germany, Federal Republic of

PA Boehringer Ingelheim GmbH, Ingelheim am Rhein, Germany, Federal Republic  
of (non-U.S. corporation)  
PI US 5688793 19971118 <--  
AI US 1996-699809 19960819 (8)  
RLI Continuation of Ser. No. US 1994-360863, filed on 21 Dec 1994, now  
abandoned  
PRAI DE 1993-4343649 19931221  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Bernhardt, Emily  
LREP Raymond, Robert P., Stempel, Alan R., Devlin, Mary-Ellen  
CLMN Number of Claims: 20  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 851

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to new pyridazino[4',5':3,4]-pyrrolo[2,1-  
a]isoquinolines of the formula ##STR1## and the physiologically  
acceptable salts thereof with acids and complex-forming agents, wherein  
X is O, S or NHO and R.sub.1, R.sub.3, R.sub.4, R.sub.5, R.sub.6,  
R.sub.7, R.sub.8 and R.sub.9 are defined as in the specification, and  
pharmaceutical preparations containing these compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 26 OF 32 USPATFULL on STN

AN 97:94236 USPATFULL  
TI 9-amino-pyridazino[4'5':3,4]pyrrolo-[2,1-a]isoquinolines and the use  
thereof for the production of pharmaceutical preparations  
IN Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of  
PA Boehringer Ingelheim KG, Ingelheim am Rhein, Germany, Federal Republic  
of (non-U.S. corporation)  
PI US 5677304 19971014 <--  
AI US 1996-649550 19960517 (8)  
RLI Division of Ser. No. US 1994-334979, filed on 7 Nov 1994, now patented,  
Pat. No. US 5565452 which is a continuation of Ser. No. US 1993-81916,  
filed on 22 Jun 1993, now abandoned  
PRAI DE 1992-4220384 19920622  
DE 1992-4220361 19920622  
DE 1992-4220380 19920622  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Reamer, James H.  
LREP Raymond, Robert P., Rieder, Wendy E., Stempel, Alan R.  
CLMN Number of Claims: 30  
ECL Exemplary Claim: 18  
DRWN No Drawings  
LN.CNT 982

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of 9-amino-pyridazino-  
[4',5':3,4]pyrrolo[2,1-a]isoquinolines of the formula ##STR1## and the  
physiologically acceptable salts thereof with acids, bases and  
complexing agents for preparing agents for treating chronic inflammatory  
processes, ulcerative colitis and Crohn's disease, and for producing  
agents having an antiproliferative activity. The definitions of  
substituents R.sub.1 to R.sub.9 are given in the specification. The  
invention also relates to new compounds of general formula I which are  
also defined in the specification and their use as cerebroprotective  
agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 27 OF 32 USPATFULL on STN  
 AN 97:91535 USPATFULL  
 TI Anellated dihydropyridines and the use thereof for the production of pharmaceutical preparations  
 IN Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
 Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
 Roos, Otto, Schwabenheim, Germany, Federal Republic of  
 PA Boehringer Ingelheim KG, Ingelheim am Rhein, Germany, Federal Republic of (non-U.S. corporation)  
 PI US 5674878 19971007 <--  
 AI US 1995-477214 19950607 (8)  
 RLI Division of Ser. No. US 1994-249822, filed on 26 May 1994, now abandoned  
 PRAI DE 1992-4220353 19920622  
 DE 1992-4220319 19920622  
 DE 1992-4220355 19920622  
 DE 1992-4220368 19920622  
 DE 1992-4220345 19920622  
 DE 1992-4220312 19920622  
 DE 1992-4220373 19920622  
 DE 1992-4220369 19920622  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Ivy, C. Warren; Assistant Examiner: Mach, D. Margaret M.  
 LREP Raymond, R. P., Devlin, M-E. M., Stempel, A. R.  
 CLMN Number of Claims: 21  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1935  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB Compound of general formula I ##STR1## wherein A is a benzo or thieno group;  
  
 R.sub.1 is (C.sub.4-6)cycloalkyl, (C.sub.4-6)cycloalkyl-(C.sub.1-5)alkyl or ##STR2## R.sup.2, m, R.sup.3, R.sup.4, R and u are defined as in the specification, and pharmaceutical preparations containing this compound and the new pharmaceutical uses thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 28 OF 32 USPATFULL on STN  
 AN 97:76139 USPATFULL  
 TI Anellated dihydropyridines and the use thereof for preparing pharmaceutical preparations  
 IN Roos, Otto, Schwabenheim, Germany, Federal Republic of  
 Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
 Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
 PA Boehringer Ingelheim KG, Ingelheim am Rhein, Germany, Federal Republic of (non-U.S. corporation)  
 PI US 5661157 19970826 <--  
 AI US 1994-360867 19941221 (8)  
 PRAI DE 1993-4343683 19931221  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Northington Davis, Zinna  
 LREP Raymond, Robert, Stempel, Alan R., Rieder, Wendy E.  
 CLMN Number of Claims: 8  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1201  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB Compound of general formula I ##STR1## wherein A denotes a benzo, indolo or thienyl group;

B denotes the group --0--, --S-- or --CHR.sup.5 --, wherein R.sup.5 is hydrogen, (C.sub.1-6)alkyl, phenyl or benzyl;

R.sup.3 denotes 2- or 3-thienyl, (C.sub.4-7)cycloalkyl, (C.sub.4-6)cycloalkyl(C.sub.1-5)alkyl or ##STR2## wherein R is (C.sub.1-4)alkyl, hydroxy, --N.sub.3, halogen (F, Cl, Br, I), CF.sub.3 or (C.sub.1-4)alkoxy,

u is 0, 1, 2 or 3, and

m, R.sup.2, R.sup.4, R.sup.7, R.sup.8 and R.sup.9 are as defined in the specification, as well as pharmaceutical preparations containing these compounds and the pharmaceutical use thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 29 OF 32 USPATFULL on STN

AN 97:56685 USPATFULL

TI Anellated dihydropyridines and the use thereof for the production of pharmaceutical preparation

IN Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
Losel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of

PA Boehringer Ingelheim KG, Ingelheim am Rhein, Germany, Federal Republic of (non-U.S. corporation)

PI US 5643919 19970701

<--

AI US 1995-475154 19950607 (8)

RLI Continuation of Ser. No. US 1994-249822, filed on 26 May 1994, now abandoned

PRAI DE 1992-4220369 19920622

DE 1992-4220373 19920622

DE 1992-4220312 19920622

DE 1993-4220368 19930622

DE 1993-4220345 19930622

DE 1993-4220355 19930622

DE 1993-4220319 19930622

DE 1993-4220353 19930622

DT Utility

FS Granted

EXNAM Primary Examiner: Ivy, C. Warren; Assistant Examiner: Mach, D. Margaret M.

LREP Raymond, R. P., Devlin, M-E. M., Stempel, A. R.

CLMN Number of Claims: 7

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1701

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compound of general formula I ##STR1## wherein A is a benzo or thieno group;

R.sub.1 is (C.sub.4-6)cycloalkyl, (C.sub.4-6)cycloalkyl-(C.sub.1-5)alkyl or ##STR2## R.sup.2, m, R.sup.3, R.sup.4, R and u are defined as in the specification, and pharmaceutical preparations containing this compound and the new pharmaceutical uses thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 30 OF 32 USPATFULL on STN

AN 97:18168 USPATFULL

TI Anellated dihydropyridines and the use thereof for preparing pharmaceutical preparations

IN L osel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of  
Arndts, Dietrich, Appenheim, Germany, Federal Republic of

PA Boehringer Ingelheim GmbH, Ingelheim am Rhein, Germany, Federal Republic  
of (non-U.S. corporation)  
PI US 5607943 19970304 <--  
AI US 1994-360524 19941221 (8)  
PRAI DE 1993-4343684 19931221  
DE 1993-4343641 19931221  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Shah, Mukund J.; Assistant Examiner: Wong, King Lit  
LREP Raymond, Robert P., Rieder, Wendy E., Devlin, Mary-Ellen M.  
CLMN Number of Claims: 3  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 998

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A compound of formula I ##STR1## wherein A denotes a benzo, indolo or  
thieno group;

R.sup.1 denotes thienyl or the group ##STR2## wherein

R.sup.7, R.sup.8 and R.sup.9 independently of one another may represent  
methyl, ethyl, propyl, phenyl or benzyl, whilst not more than 2 of the  
substituents can simultaneously represent phenyl or benzyl;

R.sup.2, m, R.sup.3 and R.sup.4 are defined as in the specification, as  
well as pharmaceutical preparations containing this compound and the new  
pharmaceutical uses thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 31 OF 32 USPATFULL on STN

AN 96:94582 USPATFULL  
TI 9-amino-pyridazino[4',5':3,4]pyrrolo-[2,1-A]isoquinolines and the use  
thereof for the production of pharmaceutical preparations  
IN Arndts, Dietrich, Appenheim, Germany, Federal Republic of  
L osel, Walter, Gau-Algesheim, Germany, Federal Republic of  
Roos, Otto, Schwabenheim, Germany, Federal Republic of  
PA Boehringer Ingelheim KG, Ingelheim am Rhein, Germany, Federal Republic  
of (non-U.S. corporation)  
PI US 5565452 19961015 <--  
AI US 1994-334979 19941107 (8)  
RLI Continuation of Ser. No. US 1993-81916, filed on 22 Jun 1993, now  
abandoned  
PRAI DE 1992-4220380 19920622  
DE 1993-4220361 19930622  
DE 1993-4220384 19930622  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Reamer, James H.  
LREP Raymond, Robert P., Rieder, Wendy E., Stempel, Alan R.  
CLMN Number of Claims: 14  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 902

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to the use of 9-amino-pyridazino-[4',  
5':3,4]pyrrolo[2,1-a]isoquinolines of the formula ##STR1## and the  
physiologically acceptable salts thereof with acids, bases and  
complexing agents for preparing agents for treating chronic inflammatory  
processes, ulcerative colitis and Crohn's disease, and for producing  
agents having an antiproliferative activity. The definitions of  
substituents R.sub.1 to R.sub.9 are given in the specification. The  
invention also relates to new compounds of general formula I which are  
also defined in the specification and their use as cerebroprotective



agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 32 OF 32 TOXCENTER COPYRIGHT 2004 ACS on STN  
AN 1997:148269 TOXCENTER  
CP Copyright 2004 ACS  
DN CA12619251066R  
TI Preparation of furanones as **endothelin antagonists**  
AU Cheng, Xue-Min; Doherty, Annette Marian; Patt, William Chester; Repine, Joseph Thomas  
CS ASSIGNEE: Warner-Lambert Company  
PI WO 978169 A1 6 Mar 1997  
SO (1997) PCT Int. Appl., 46 pp.  
CODEN: PIXXD2.  
CY UNITED STATES  
DT Patent  
FS CAPLUS  
OS CAPLUS 1997:276449  
LA English  
ED Entered STN: 20011116  
Last Updated on STN: 20040817  
AB Novel nonpeptide antagonists of endothelin [I; R1 = (un)substituted C3-12 cycloalkyl, Ph, naphthyl, heteroaryl; R2 = (un)substituted C1-12 alkyl, C3-12 cycloalkyl; R3 = (un)substituted C1-12 alkyl, C3-12 cycloalkyl, etc.; R4 = OH, O(C1-7 alkyl), SH, etc.; X = O, S], useful in treating elevated levels of endothelin, acute and chronic renal failure, hypertension, myocardial infarction, myocardial ischemia, cerebral vasospasm, cerebral ischemia, cerebral infarction, cirrhosis, septic shock, congestive heart failure, endotoxic shock, subarachnoid hemorrhage, arrhythmias, asthma, preeclampsia, atherosclerotic disorders including Raynaud's disease and restenosis, angina, **cancer**, pulmonary hypertension, ischemic disease, gastric mucosal damage, hemorrhagic shock, ischemic bowel disease, stroke, benign prostatic hyperplasia (BPH), and diabetes, were prepared Thus, treatment of 3-(benzo[1,3]dioxol-5-yl)-5-hydroxy-5-(4-methoxyphenyl)-4-(3,4,5-trimethoxybenzyl)-5H-furan-2-one with CF3COOH followed by addition Et3SiH afforded II which showed IC50 of 30 nM against endothelin receptor ETA (ERBA-A) and of > 2500 nM against ETB (ERBA-B).

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